

Contemporary Psychology

A JOURNAL OF REVIEWS

April 1959

VOLUME IV • NUMBER 1

- | | |
|---------|---|
| Page 97 | Chambers's Encyclopaedia
Collier's Encyclopedia
Encyclopedia Americana
Encyclopaedia Britannica
<i>Reviewed by J. T. METCALF</i> |
| 105 | Electronic Instrumentation for the Behavioral Sciences,
by C. C. Brown and R. T. Saucer
<i>Reviewed by A. F. Ax</i> |
| 106 | Explorations in Role Analysis: Studies of the School
Superintendency Role, by Neal Gross, W. S. Mason, and
A. A. McEachern
<i>Reviewed by D. W. LEWITT</i> |
| 108 | The Psychologic Study of Man, by John Money
<i>Reviewed by I. N. MENSH</i> |
| 109 | CP SPEAKS
By the EDITOR |

(Continued on inside cover)

Published by THE AMERICAN PSYCHOLOGICAL ASSOCIATION

Edwin G. Boring, Editor
Harvard University

EDITH L. ANNIN, Assistant to the Editor

ADOLPH MANOIL, Film Editor
Park College

Editorial Consultants

FRANK A. BEACH, *University of California*

PETER A. BERTOCCHI, *Boston University*

JUDSON S. BROWN, *State University of Iowa*

ROGER W. BROWN, *Massachusetts Institute of Technology*

CLAUDE E. BUXTON, *Yale University*

JACK W. DUNLAP, *Stamford, Conn.*

RICHARD M. ELLIOTT, *University of Minnesota*

ANN M. GARNER, *Lincoln, Neb.*

FRANK A. GELDARD, *University of Virginia*

DANIEL KATZ, *University of Michigan*

DONALD W. MACKINNON, *University of California*

MELVIN H. MARX, *University of Missouri*

DOUGLAS MCGREGOR, *Massachusetts Institute of Technology*

QUINN MCNEMAR, *Stanford University*

CLIFFORD T. MORGAN, *The Johns Hopkins University*

NORMAN L. MUNN, *Bowdoin College*

CHARLES E. OSGOOD, *University of Illinois*

VICTOR RAIMY, *University of Colorado*

FILLMORE H. SANFORD, *University of Texas*

NEVITT SANFORD, *University of California*

ROBERT R. SEARS, *Stanford University*

HAROLD SEASHORE, *New York, N. Y.*

S. SMITH STEVENS, *Harvard University*

DONALD E. SUPER, *Teachers College, Columbia University*

GEORGE G. THOMPSON, *Syracuse University*

BENTON J. UNDERWOOD, *Northwestern University*

S. RAINS WALLACE, JR., *Hartford, Conn.*

ROBERT I. WATSON, *Northwestern University*

ROBERT W. WHITE, *Harvard University*

ROBERT B. ZAJONC, *University of Michigan*

CONTENTS—continued

- 110 **Personality: An Interdisciplinary Approach**, by L. P. Thorpe and A. M. Schmuller

Reviewed by JAMES BIERI

- 110 **Systematic Sociology: An Introduction to the Study of Society**, by Karl Mannheim

Reviewed by B. H. RAVEN

- 111 **Differential Psychology: Individual and Group Differences in Behavior**, by Anne Anastasi

Reviewed by D. A. WORCESTER

- 112 **Problèmes de la couleur**, by Ignace Meyerson (Ed.)

Reviewed by M. H. PIRENNE

- 114 **On Shame and the Search for Identity**, by Helen M. Lynd

Reviewed by URIE BRONFENBRENNER

- 116 **America's Children: An Analysis of Economic and Social Factors Affecting the Nation's Children**, by Eleanor R. Bernert

Reviewed by J. R. WITTENBORN

- 118 **Shinrigaku Kenkyūhō (Research Methods in Psychology)**, by Sadaji Takagi (Ed.)

Reviewed by S. D. KOH

- 120 **ON THE OTHER HAND**

- 126 **List of Books Received**

Books for review, review manuscripts, letters for publication, and correspondence concerning editorial matters should be sent to the Editor, Edwin G. Boring, Memorial Hall, Harvard University, Cambridge 38, Mass.

Films for review and correspondence concerning films should be sent to the Film Editor, Adolph Manoil, Park College, Parkville, Mo.

ARTHUR C. HOFFMAN, Managing Editor; HELEN ORR, Promotion Manager

Communications concerning subscriptions, change of address, claims for the nonreceipt of a number, advertising, and other business matters should be sent to the American Psychological Association, Inc., 1333 Sixteenth Street, N.W., Washington 6, D. C. Address changes must reach the Subscription Office by the 10th of the month to take effect the following month.

Contemporary Psychology: A Journal of Reviews is published monthly. The yearly volume comprises approximately 384 pages. The subscription per year is \$8.00, foreign \$8.50, single number \$1.00.

Published by the American Psychological Association at Prince and Lemon Sts., Lancaster, Pa. and 1333 Sixteenth St., N.W., Washington 6, D. C.

Second-class postage paid at Lancaster, Pa., and at additional mailing offices.

© 1959 by the American Psychological Association, Inc.

Contemporary Psychology

A JOURNAL OF REVIEWS

VOLUME IV

April 1959

NUMBER 4

Psychology in the Encyclopedias

Chambers's Encyclopaedia. (New ed.) London: Newnes, 1955. 15 vols. £69 6s-£96 12s.

Collier's Encyclopedia. New York: Collier, 1957. 20 vols. \$299.00.

Encyclopedia Americana. New York: Americana Corp., 1957. 30 vols. \$299.50-\$600.00.

Encyclopaedia Britannica. Chicago: Encyclopaedia Britannica, Inc., 1957. 24 vols. \$298.00 and up.

Reviewed by JOHN T. METCALF

Dr. Metcalf, with a Yale PhD from long ago, has been Chairman of the Department of Psychology, University of Vermont from 1937 to 1954 and is now Professor of Psychology Emeritus. He has been one of the founders of the Vermont Society for Mental Hygiene and of the Vermont Psychological Association and later president of each. He is convinced of the importance of good teaching, has devoted himself to that activity and enjoyed it. He thinks that a teacher of psychology occupies a strategic position in modern bifocal education, because psychology, he says, forms a natural bridge between the other sciences and the humanities.

ONE of the more important ways in which the science of psychology is presented to the general public is through the articles which deal with it in the encyclopedias. The review which follows has to do with the coverage of psychology in four English-language encyclopedias: the *Americana*, the *Britannica*, *Chambers's*, and *Collier's*. These four were chosen for study because they are general encyclopedias, they are outstanding in their field, and they all have contemporary editions or printings. As far as the reviewer has been able to de-

termine there has been only one earlier review in this field. It was a study by E. B. Titchener of the *Britannica's* 11th edition, which appeared in 1910-11, and it was published in the *American Journal of Psychology* in 1912 (vol. 23, 32-58) under the title *The Psychology of the New Britannica*.

The *Britannica* is the oldest of the four encyclopedias, having been founded in England in 1768. Since 1920 it has been published in the United States,

edited jointly at the University of Chicago and by a board of editors in London. Its present Editor for Psychology is James G. Miller, of the University of Michigan.

The *Encyclopedia Americana* was first published in a 13-volume edition from 1829 to 1833, and it has been an American publication from the start. Its present Editor for Psychology is Philip L. Harriman, of Bucknell University, who edited a one-volume *Encyclopedia of Psychology* which appeared in 1946.

Chambers's Encyclopaedia was founded by William Chambers and his brother Robert, of Edinburgh, and the first edition was issued in 520 weekly installments between 1859 and 1868. It is now published in London, and its most recent edition appeared in 1950. A subsequent printing came out in 1955, with only minor changes as far as psychology is concerned. Chambers's present Editor for Psychology is Sir Frederick C. Bartlett, of Cambridge.

Collier's Encyclopedia claims to be the only major adult encyclopedia to have been published totally new in the last thirty years. Its first edition appeared in 1949-50, and its Editor for Psychology was the late Walter S. Hunter, of Brown University. *Collier's*



JOHN T. METCALF

has come out with a new printing each year since it started, but with few changes in its coverage of psychology.

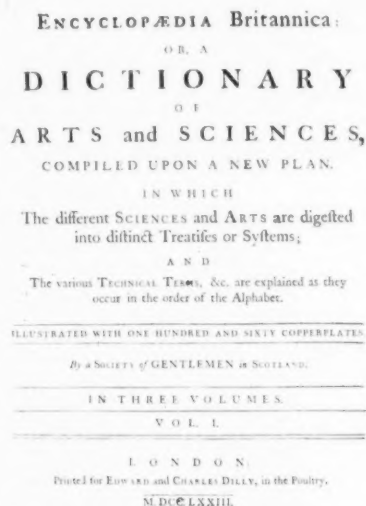
The *Britannica* and the *Americana* now follow a policy of continuous revision, instead of publishing new editions at relatively long intervals. They issue new and revised printings, sometimes referred to as editions, each year. The plan is described in the preface of the *Britannica* by Walter Yust, Editor, who then goes on to say, "The result is that, within, of course, the obvious limitations set by the manufacture and structure of an encyclopaedia of 38,000,000 words, the *Britannica* is never old." This is to the advantage of the reader, who might be regarded as the ultimate consumer. There are advantages to the producer as well, which are described in the *Britannica's* article *Encyclopaedia*. The plan makes it possible to keep both the editorial staff and the sales staff busy all the time, as was not possible under the old plan. It is also possible to print just enough sets of each new edition to meet the demand for the current year.

Certain mechanical difficulties arise when articles are dropped, added, or revised, unless the new material fits exactly into the space vacated by the old. Several devices are employed by the encyclopedias to overcome this limitation of 'manufacture.' These devices are successful within limits, but they sometimes result in clumsy and illogical arrangements. For example, anyone wishing to list a reference might find himself recording such page numbers as 27E or, also for a single page, 110-113. The *Britannica* often makes sudden changes from large to small type to reduce the space covered by an article, quite without regard for the article's plan. Another device is to group several separate articles under one title, as is done with some of the most important articles on psychology.

The *Britannica* started the plan of continuous revision in 1936, but as far as psychology is concerned, the program began really to get under way only with the beginning of the present decade. Many important changes have since been made in the coverage of psychology, most of them long overdue. The *Americana*, which also adopted the new

plan about twenty years ago, has been even slower in revising its coverage of psychology.

The most important difference between *Chambers's Encyclopaedia* and the three American publications is that *Chambers's* keeps much closer than the others to the traditional plan of an encyclopedia as a group of single treatises. It has a very long and inclusive article *Psychology* and relatively few articles on the various divisions and subdivisions of the subject. The three American publications all follow much more



From the three-volume *Britannica* of 1773

the dictionary plan. If a reader looks up a term in the index of *Chambers's*, he is most likely to be referred to the long article *Psychology*. If he looks it up in the index of one of the American encyclopedias, he is much more likely to be referred to an article on the term itself.

IN order to get a general view of the extent of the coverage of psychology in the four encyclopedias, the reviewer made a card file of psychological terms. The criterion of what is a psychological term was a broad one: whether a book or article on the term would be reviewed in *Psychological Abstracts*. The result was a collection of 404 terms, all of which were looked up in each of the

four encyclopedias, and a note made as to how every one was handled. A term could be treated by an encyclopedia in any one of four ways: (a) by a signed article, (b) by an unsigned article, (c) by listing the term without an article, but with a reference to some other term, (d) by not listing the term at all, except perhaps in the index with a reference to some other term.

Of these 404 terms, 102 were taken out of the main group, because they were not really represented in the coverage of psychology in any of the encyclopedias. Of the 102 terms thus removed, 33 were not listed in any of them. Among these terms were: *kines-thesia*, *lie detector*, *experimental neuro-sis*, *reaction-time*, and *retention*. The other 69 terms were removed for one or more of the following reasons: (a) they were marginal terms with no separate article in any of the encyclopedias; (b) their articles dealt exclusively with other meanings of the term than the psychological one, as: *recall* (in the political sense only), *adaptation* (in the biological sense only), *inhibition* (a term in English law); or (c) no article on the term was psychological enough to justify its inclusion, as: *propaganda*, *reading*, *social insects*, *space*. The removal of these 102 items left a main group of 302 psychological terms.

Table 1 shows how the 302 terms were handled by the four encyclopedias with regard to the four alternatives described above. The difference in plan between *Chambers's Encyclopaedia* and the others is clearly reflected. Three-quarters of the terms are not listed in it at all. Many of them, however, are to be found in the index, with references to *Psychology* or some other article. The *Britannica* and the *Americana* show considerable similarity in the way they handle the terms. The total number of articles, signed and unsigned, is about the same for the two, 170 for the *Britannica* and 184 for the *Americana*, though the former has a few more signed articles than the latter. *Collier's* follows the excellent rule of having all its articles signed. It is a smaller encyclopedia than the other two American ones, so it is natural that it should have a smaller number of articles and more terms unlisted than they. Still, all three

TABLE I
TREATMENT OF TERMS

	<i>Britannica</i>		<i>Chambers's</i>		<i>Americana</i>		<i>Collier's</i>	
	N	%	N	%	N	%	N	%
Signed articles	131	43	53	18	123	41	125	41
Unsigned articles	39	13	11	4	61	20	—	—
Term only	24	8	8	3	30	10	30	10
Not listed	108	36	230	76	88	29	147	49
Total	302	100	302	101	302	100	302	100

of the encyclopedias which follow the dictionary plan have a substantial number of articles on psychological terms. *Chambers's* has much fewer, but its coverage depends much more than theirs upon the article *Psychology*.

THE term main article refers to those articles which appear, one in each encyclopedia, under the title *Psychology*. The longest, of course, is that in *Chambers's Encyclopaedia*. It covers 38 pages and is by far the longest article on the list. It was written by Oliver Zangwill, who was at Oxford at the time, but who has since gone to Cambridge. In a clear, readable style the author gives a well-balanced account of general psychology. The systematic point of view is functionalistic, "the study of the organism as a whole in its adaptive relations with the environment." The historical and systematic sections of the article, though necessarily condensed, are excellent; and the discussions of recent developments in scientific investigation are, on the whole, as up to date as those of the typical contemporary textbook. Since the article is responsible for a large part of the encyclopedia's coverage of psychology, the author has to deal with a number of subtopics in considerable detail. This difficult task is effectively performed. Zangwill is well acquainted with American psychology, and, in the reviewer's opinion, he does it full justice. He is frank in his recognition of psychology's limitations, and he discusses them with wisdom and candor.

The *Britannica's* main article is written by Boring. It is combined, under the title *Psychology*, with four other articles, each by a different author, on

Clinical, Educational, Legal, and Physiological Psychology. The group of five articles just fills the pages left vacant in 1951, when the former article *Psychology*, written by Stout and revised by Mace, was withdrawn. A similar piece of patchwork was carried out by the editors in connection with Boring's article *History of Psychology*. We find combined with it three other articles on *Functionalism, Gestalt Psychology, and Social Psychology*. For the purposes of this review these nine articles, by eight authors, under two titles, are treated as the separate entities they actually are.

Boring's article *Psychology* is brief compared to Zangwill's, but, since the *Britannica* follows the dictionary plan and there are a large number of articles on special fields and topics, the main article can focus on the broader aspects of the subject. This is what Boring has admirably done. His article is divided into three sections: Schools of Psychology, General Psychology, and Special Fields of Psychology. The reader is given a clear idea of what scientific psychology is, and of what its principal branches and applications are. The treatment of systematic psychology is the best to be found in any of the encyclopedias.

The *Americana's* main article is by Dashiell and it is five pages long. After a brief account of the origin and development of scientific psychology, the author goes on to a discussion of methods. He then takes up the chief categories of general psychology, and variations in theoretical interpretation. This is followed by a brief discussion of the more important special fields. The article closes with an interesting discussion of the relation of psychology to

normative disciplines. In this, as in his other articles, Dashiell writes with rare insight and illuminating clarity. His 18 articles in the *Americana* form the most important contribution by a writer to the coverage of psychology in any of the four encyclopedias, except for Zangwill's long article in *Chambers's*.

Collier's main article is attributed to two authors, F. A. Geldard and A. L. Hall-Quest, Professor of Education at New York University. The latter is listed in *Collier's* as Co-editor for Education. The article in question is only two pages long, and about three-quarters of this space is devoted to an attempt to trace the history of philosophical thought about the mind from Plato to Herbart. As for the treatment of modern psychology, the quotation of one sentence should give a fair idea of its quality. "By experimentation, scientific observation and trained introspection, and modern methods of psychological investigation, psychologists have examined monism, dualism, spiritualism, various types of materialism, empiricism, associationism, sensationism, and behaviorism—all of them attesting to the elusiveness of the fundamental meaning of man as a conscious being, endowed with potential capacity to know himself."



OLIVER L. ZANGWILL

The reviewer concluded that the article could not have been written by Geldard or approved by Hunter. In reply to a letter of inquiry Geldard wrote that, at Hunter's request, he had written an article of about 8,000 words and had received a check for it, but that when the article appeared it bore no resemblance to the one he wrote. Hunter had approved Geldard's article, as Mrs. Alda B. Hunter was kind enough to determine from her late husband's files. A letter to Dr. Hall-Quest brought a reply telling of his having joined the staff of *Collier's Encyclopedia* in 1949, as Associate Editor, and being put in charge of all manuscripts in psychology and related fields. Hundreds of articles passed through his department, but he could not recall having seen Dr. Geldard's. He did not recognize the present article as having been written or worked on by himself. Further letters brought no reply from him. Correspondence with the Editor-in-Chief and with the publisher of *Collier's Encyclopedia* also brought no further light. The files had been searched in vain, and so many changes had occurred in personnel that nothing could be determined from the recollection of staff members. So, in its article *Psychology*, which has appeared in eight annual printings, *Collier's* presents the double mystery of Geldard's missing article and the printed article's missing author.

It should not be supposed that the

unfortunate main article is typical of *Collier's* coverage of psychology. In general, this is good, and in some ways excellent, thanks to the wise judgment and careful planning of the Editor for Psychology. It is only in certain parts of *Collier's* coverage that Hunter's finely-formed plan has been mishandled.

THE next question to be considered is how the encyclopedia articles dealing with the field of psychology are distributed among the various branches of the subject. Here again *Psychological Abstracts* provided a framework for the study. Table 2 shows how the articles, signed and unsigned, are distributed among the 12 divisions of the *Abstracts*. The numbers and percentages are given for each encyclopedia separately, and the column of totals shows a composite of the four. The last column of the table is headed "P.A." for *Psychological Abstracts*. Its figures are derived from the three volumes of that publication which cover the years 1953-55. They give the percentage distribution of abstracts among the 12 divisions for this three-year interval. Comparison of the encyclopedia percentages with those of this last column should give a rough idea of how the pattern of their coverage corresponds to the distribution of psychological activities and interests as these are reflected in the *Abstracts*.

Table 2 shows that all of the divisions

except one are represented by articles in all four of the encyclopedias. The single exception, *Personnel Psychology*, is not covered by an article in any of the four. There is some discussion of this field in articles on other subjects, but no article specifically on it. Table 2 also shows that in the first five divisions each of the encyclopedias has a higher percentage of items than the *Abstracts*. In the remaining seven divisions the reverse is the case with only a few exceptions. In Division 9, *Behavior Deviations*, the *Americana* and *Collier's* both have slightly higher percentages than the *Abstracts*, and in Division 12, *Industrial and Other Applications*, the *Britannica* slightly exceeds, and the other three equal, the percentage of the *Abstracts*. The first five divisions represent the science of psychology as a whole, and include the traditional topics of experimental investigation. Starting with Division 6, it is the special branches and the applications that are chiefly represented.

This result confirmed the reviewer's impression that the encyclopedias tend to emphasize the general, experimental, and physiological fields more than others, except for that of behavior deviations. This field is strongly represented, chiefly because it overlaps with psychiatry. *Chambers's* percentage in this field is low compared with that of the *American* publications, but, with its encyclopedia plan, it has an excellent 27-page article on *Mental Disorders*. The only

TABLE 2
DISTRIBUTION OF ARTICLES

	Brit.		Cham.		Amer.		Coll.		Total.		P. A.
	N	%	N	%	N	%	N	%	N	%	%
1 General	25	15	13	20	32	17	19	15	89	16	11
2 Physiol. Psy.	15	9	6	9	16	9	12	10	49	9	3
3 Recept. Procs.	35	21	16	25	33	18	16	13	100	18	8
4 Resp. Procs.	11	7	5	8	10	5	6	5	32	6	3
5 Complex Procs.	34	20	9	14	29	16	24	19	96	18	9
6 Develop. Psy.	3	2	1	2	5	3	3	2	12	2	5
7 Social Psy.	5	3	2	3	5	3	1	1	13	2	11
8 Clinical Psy.	4	2	2	3	6	3	6	5	18	3	14
9 Behavior Devs.	27	16	7	11	40	22	32	26	106	20	20
10 Educ. Psy.	4	2	1	2	3	2	2	2	10	2	10
11 Personnel Psy.	—	—	—	—	—	—	—	—	—	—	4
12 Industr., etc.	7	4	2	3	5	3	4	3	18	3	3
Total	170	101	64	100	184	101	125	101	543	99	101

other division among the last seven in which the encyclopedias equal the *Abstracts* is the last one of all. This is due not only to their interest in industrial psychology, but also to a certain small number of articles in fields of application which are not much represented in the current literature, such as *Legal Psychology*. The four encyclopedias show patterns of coverage which are fairly similar to one another, in spite of the differences in total number of articles. The *Britannica* and the *Americana* especially show a very close resemblance in this respect. The two which differ from each other most are *Chambers's* and *Collier's*, though they both follow the pattern which has appeared as typical of the four.

ALL the articles except the main ones fall naturally into two groups, according to whether they deal with departments of psychology or with topics

4. *Psychology*, which is the fourth part of metaphysics, and confits in the knowledge of the foul in general, and of the foul of man in particular; concerning which, the most profound, the most subtle and abstract researches have been made, that the human reason is capable of producing; and concerning the substance of which, in spite of all these efforts, it is yet extremely difficult to asser any thing that is rational, and still less any thing that is positive and well-supported.

From the 1773 *Britannica's* article
Metaphysics

within the various departments. The departmental articles dealing with history of psychology and the schools will be considered first, then those concerned with special fields, and finally those on applications of psychology.

The *Britannica* alone has an article on *History of Psychology*. It was written by Boring, and it is an admirable survey, starting with the ancient Greeks and coming down to the present. The other encyclopedias depend on their main articles to cover this subject. Zangwill and Dashiell both give brief but adequate accounts of the historical background of scientific psychology. *Collier's* main article, as we have seen, is deficient in this respect.

In one way or another structuralism, functionalism, Gestalt psychology, and behaviorism are covered in all the encyclopedias. *Collier's* alone has articles

on all four, though its main article does not deal with them. The *Britannica* has special articles on all of these schools except structuralism, and in the main article Boring gives an excellent account of systematic psychology. For the *Americana* Dashiell discusses the schools in his main article and in a special article *Behaviorism*. The *Americana* also has an article *Functionalism*, by James R. Angell.

The treatment of systematic psychology by the encyclopedias illustrates a tendency they have to lag somewhat behind the march of events, even when the editors have a program of continuous revision. At a time when the schools are rapidly declining in importance, the encyclopedias, for the most part, continue to reflect the outlook of an earlier day when the schools were significant and vital. It is only in the main articles of Zangwill and Boring that one finds the recent trend represented. Zangwill develops his own functionalistic view, broadly and effectively, to cover the main stream of contemporary psychological thought. He holds that systematic divisions today are more apparent than real. Boring is even more explicit about what is occurring at the present time. At the close of a comprehensive review of the schools he writes, "Operationism embraces consciousness and then reduces it to observable physical data, thus bringing psychology, by making it physical, within the unity of the sciences." He goes on to remark that the modern dichotomy in systematic psychology is that between operationism and phenomenology. The reviewer has not been able to find any other treatment of operationism in the encyclopedias. In his article *Behaviorism* in the *Britannica* Hunter refers to S. S. Stevens, *The Operational Basis of Psychology*, with its adaptation of P. W. Bridgman's physical methodology, but he does not go on to a discussion of these views.

Psychoanalysis is thoroughly covered by all four of the encyclopedias, and it is treated both as a school of psychological thought and as a therapeutic method. The *Britannica's* article is by four authors. An article by Freud, translated by E. Jones, which first appeared in 1926, is retained as the first section

of the present article. Then two psychiatrists, L. S. Kubie and B. D. Levin, discuss later developments, and the article closes with a section on Freud's influence on art and literature by F. J. Hoffman, of the English Department at the University of Wisconsin. *Chambers's* article is by Ernest Jones, and it is an excellent authoritative exposition of Freud's system. In the other two encyclopedias this subject is handled by psychologists, G. R. Pascal for *Collier's* and C. S. Hall for the *Americana*. The *Americana* also has articles on *Individual Psychology*, by K. L. Smoke, and *Analytical Psychology*, R. C. Matthews.

The coverage of the fields of psychology is accomplished by various combinations of main, departmental, and topical articles. Here, as elsewhere, *Chambers's* depends chiefly on its main article. It has only four departmental articles on fields: *Psychological Tests*, *Behaviour of Animals*, *Behaviour Disorders*, and *Social Psychology*. The American publications have two or three times as many departmental articles on fields of psychology.

Experimental psychology is, on the whole, well covered. *Chambers's* main article gives the reader a good idea of the place and importance of the laboratory. There are good articles on *Experimental Psychology* in the *Britannica* and *Collier's*, the former by F. C. Bartlett and the latter by H. Schlosberg. The *Americana* has no article on this title, but it does have a valuable article on *Psychological Apparatus and Techniques*. The *Britannica* has an article on *Psychophysics* by Boring, and one on *Experimental Aesthetics* by H. S. Langfeld and D. Katz. There are, of course, a number of articles on special topics in the experimental field in all the encyclopedias.

Differential psychology is also well handled in all the encyclopedias, and all of them except *Collier's* have articles on mental tests. Only the *Britannica*, however, has a special article on *Physiological Psychology*, and it is an excellent one by Lashley. All the encyclopedias are well supplied with articles on the nervous system and the sensory and motor organs. These articles are written chiefly by anatomists, physiologists, and neurologists.

The internal ear and middle ear are traversed by several nervous threads, the presence of which is, perhaps, useful to hearing.

—From the 1835 *Americana's* article *Ear*

Child psychology is well covered by the three American publications, but neglected by *Chambers's*; and *Collier's* is the only one of the four with an article by a psychologist on *Adolescence*. Animal psychology, under various titles, is well covered by all four. The outstanding contribution is the *Britannica's* 18-page article by T. C. Schneirla.

Abnormal psychology, as we have seen, is covered by a larger number of articles than any other division, and each of the four encyclopedias has an excellent departmental article on that field. Social psychology is also covered by first-rate articles in all four. *Chambers's* article by R. H. Thouless is especially clear and comprehensive.

The three American encyclopedias all have articles on *Applied Psychology*. The *Britannica's* article by Poffenberger is the outstanding one. *Chambers's* lacks an article under this title, and it has departmental articles on only two fields of application, the educational and the industrial.

Chambers's article *Educational Psychology* is by Charlotte M. Fleming, and it ranks with the best of the departmental articles. It is a brilliant and scholarly interpretation of the influence of modern psychological thought on educational theory and practice in Europe and North America. The *Britannica's* article by S. L. Pressey, and the *Americana's* by F. N. Freeman, though briefer and more restricted in their scope, are both good sound articles.

Collier's article on *Educational Psychology* is by A. L. Hall-Quest. It is by far the longest article on this subject in any of the four encyclopedias. It is also four times as long as *Collier's* mysterious unauthored main article. Hall-Quest undertakes to give here much more of the modern history of scientific psychology than is given in the main article itself. This article would seem to center the fundamental unity

of the science within educational psychology. The author may not, however, have intended this effect, for he writes, "By 1910, educational psychology was sufficiently developed to make possible not only its complete withdrawal from philosophy but from general psychology as well." Still, it is difficult to determine from Hall-Quest's article just how much was left to general psychology after this secession had occurred.

Industrial psychology is covered for the *Britannica* in an excellent article by the British psychologist May Smith. *Chambers's* has an interesting article on this field by A. Rodger, and *Collier's* article is by J. G. Jenkins. The *Americana* lacks a departmental article on this field. The psychology of advertising and selling is handled chiefly by authors who are not psychologists. The *Britannica*, however, does devote part of its article *Advertising* to the psychology of that field. This section is written by Poffenberger. The *Americana* has two outdated articles on advertising and selling by W. D. Scott.

OF MELANCHOLY AND MADNESS.

MELANCHOLY and madness may be very properly considered as diseases nearly allied; for we find they have both the same origin; that is, an excessive congestion of blood in the brain: they only differ in degree, and with regard to the time of invasion. Melancholy may be looked upon as the primary disease, of which madness is only the augmentation.

From the 1773 *Britannica's* article
Medicine

There are articles on *Clinical Psychology* in all three of the American encyclopedias, though not in *Chambers's*. The *Britannica* also has an article *Psychology of Adjustment* by L. F. Schaffer. The field of mental hygiene is left entirely for medicine to handle.

The psychology of law and the psychology of religion are fields which Titchener found neglected by the *Britannica* of 1911. Today the *Britannica*, alone among the four, has an article on *Legal Psychology* by H. E. Burtt. *Collier's* is the only one of the four which has an article on *Psychology of Religion*, and that is not written by a psychologist. On the whole, though, the more important fields and applications which lacked coverage in the 1911 *Britannica* are now fairly well handled in that publication and in the others,

though not always with departmental articles.

OF the 302 psychological terms on the main list, 251 are topical in character. The number of articles on these terms varies among the four encyclopedias; *Collier's* has about twice as many, and the *Britannica* and the *Americana* about three times as many, as *Chambers's*. Less than one-tenth of the terms are represented by articles in all four of the encyclopedias, and over two-fifths of them appear with an article in only one. Of course many of the terms that lack special articles are covered in main or departmental articles.

The topical articles in general vary widely in their quality. Some differences also appear between encyclopedias in the character of their topical articles. Those of the *Britannica* tend to be somewhat longer and more scholarly than those of the other American publications. *Chambers's* coverage as a whole is both full and scholarly, but its topical articles do not impress a psychologist with as much authority as do those of the *Britannica*. The *Americana's* topical articles vary in quality more than those of any of the other encyclopedias. Some of them are among the best to be found, but there are a number with serious shortcomings. The percentage of unsigned articles is considerably higher in the *Americana* than in any of the other three. *Collier's* topical articles, all of which are signed, are shorter and less numerous than those of the *Britannica* or *Americana*. Their great virtue is their clear readable style. Though they may lack something of the authority and distinction of the *Britannica* and *Chambers's*, they are generally accurate and dependable.

When the encyclopedia articles on psychology fall below standard it is usually for one or both of two reasons: they are out of date, or they are written by persons who are not qualified in psychology, though they may be specialists in other fields. The most striking example of an outdated article is that on *Weber's Law* in the *Britannica*. It was written by A. S. Pringle-Pattison, Professor of Logic and Metaphysics at the University of Edinburgh. In his discussion of the *Britannica's* 11th edi-

tion Titchener said of this article that it was "practically unchanged from the ninth edition," which appeared in 1889. The reviewer has compared the article of 1957 with that of 1911, and has found them almost identical. This article, therefore, has all but completed the biblical lifespan of threescore years and ten in the pages of the *Britannica*.

The *Britannica* also has an article on *Fechner's Law*, but it is only eight lines long with a reference to *Weber's Law*. There was really no need for an article on either of these terms, once Boring's article *Psychophysics* appeared, since both laws are discussed in that. At an earlier time there may have been, for Titchener wrote in 1911, "*Psychophysics* . . . now heads an article; but the

titles will show: *Dreams, Biological Aspects of Consciousness, Memory and its Disorders, Muscles, Spinal Cord, Defects of Speech*. These articles, adequate perhaps in their day, should have been replaced long ago. The *Americana* still has a short unsigned article on *Unconscious Cerebration*. The anonymous author says that it is a term which was formerly in general use in "mental physiology." There is also a curious term-only item which reads as follows: "INTELLIGENCE IN ANIMALS. See ANIMAL. MIND IN THE BRUTE." When one turns to the article ANIMAL, one finds, with mixed feelings, neither THE BRUTE nor its MIND.

Other outdated or otherwise inadequate articles could be cited in the *Americana* and the *Britannica*, but it is probably unnecessary to multiply examples. *Chambers's* 1950 edition was so drastically revised that it has comparatively few outdated articles, and not many that suffer from other shortcomings. *Collier's*, which appeared in 1950 as a new publication, is happily free from outdated articles, though it has some that are unsatisfactory for other reasons.

Some of the articles whose absence from the 1911 *Britannica* Titchener deplored are still not to be found there, and the other encyclopedias show similar lacks. One of the most surprising of these occurs in the matter of hunger and thirst. No article on either of these terms appears in any of the encyclopedias, except for a seven-line, unsigned article *Thirst* in the *Americana*. This article is entirely inadequate from the standpoint of psychology and physiology. Play is also neglected, except for one article and a section of another on *Play in Animals*, and an article in the *Americana* on *Play and Play Therapy*, in which therapy totally eclipses play. Other terms which either have no article at all, or no psychological article, are: *Concept, Laughter, Meaning, Morale, Propaganda, Reaction Time, Speech*. Only *Collier's* has psychological articles on *Complex, Rhythm, Sleep, and Space Perception*. The *Britannica* alone has articles on *Transfer of Training* and *Facilitation*. *Inhibition* is not covered in any of the four encyclopedias except as a legal term. Here again a



JOHN F. DASHIELL

number of other examples might be cited, but these should be enough to show that some of Titchener's criticisms of the 1911 *Britannica* are still relevant to all four of the encyclopedias under consideration.

TABLE 1 shows a total of 432 signed articles in the four encyclopedias. These were written by 266 different authors, 184 of them American, and 82 of other nationalities, mainly British. Dividing the number of articles by the number of authors, we get a ratio of 1.6 articles per author. This ratio varies among the four encyclopedias. The *Britannica's* is 1.1, *Chambers's* is 1.2, the *Americana's* 2.4, and *Collier's* 2.1. The fact that the *Britannica* has a larger number of signed articles than any of the other three makes its low ratio even more significant. Some writers for the *Britannica* write more than one article, but these cases are just about offset by others in which two or more authors collaborate on one article. Very few authors write for more than one encyclopedia. No one has written for as many as three, and only 11 of the 266 have written for two.

Of the 266 authors, 200, or three-quarters, are listed as members or former members of faculties of universities, colleges, or professional schools. In addition, some of the other authors

success. The truly marvellous results shown in this instrument depend, primarily, on the well-known fact, that vision 'persists' for a certain short interval of time after the occlusion of the visual ray. It follows from this principle, that, if

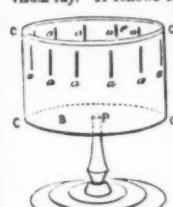


Fig. 1.

a series of pictures, representing the different attitudes successively assumed by an object in completing a given movement, be presented to the eye so quickly that the visual impression of each picture shall continue until the incidence of the one next following, the object will remain constantly in view, and its various parts will appear to execute the movement delineated by the pictures. The mechanical means for effecting this result will be understood from fig. 1, which represents the zoetrope in its most popular, but by no

From the 1874 *Chambers's* article
Zoetrope, or Wheel of Life

article has only 20 lines (about half as many as are assigned to *Tea-caddy*). What a reversal has occurred here! The present article *Psychophysics* occupies seven times the space of the earlier one, and *Tea-caddy* has been reduced to fifteen lines.

The *Americana* of 1957 also suffers from the tendency to continue outdated articles, and more severely than the *Britannica*. One of its contributors is the late Dr. Smith Ely Jelliffe, a medical man who collaborated with Dr. William A. White on a textbook of neurology and psychiatry which was well known in the early decades of this century. Some 11 of Dr. Jelliffe's articles still appear in the *Americana*. They cover quite a range of topics, as mention of a few of

have held lectureships at universities here or abroad. The faculties of 77 institutions of higher learning are represented among these 266 authors.

Of the 184 American authors, 93, or just over half, are or have been members of the American Psychological Association, 88 of them fellows and five associates. Fourteen of them have served as President of the APA, and one is, at this writing, President-elect. Of the 91 other American authors, just about half are in one or another of the medical sciences, especially psychiatry, neurology, and anatomy. The remaining quarter of these authors are distributed through a variety of fields, with the largest groups in zoology and philosophy.

The most striking difference between the group of American authors and that of the non-American ones is the smaller proportion of psychologists in the non-American group. Instead of being a good half, psychologists constitute somewhat less than a fifth of the non-American group. Here again the encyclopedia plan of the British publication should be kept in mind. A considerable part of *Chambers's* coverage of psychology has been written by a psychologist in the main article. The largest professional class among the non-American authors is that of the medical men, who make up about two-fifths of the entire group, with psychiatry and physiology predominating. The remaining non-American authors, a little more than two-fifths of the entire group, are scattered among 11 different fields, with philosophy and zoology claiming the largest numbers.

The writers of the signed articles are usually experts in their respective fields, and sometimes outstanding ones. Among them are four Nobel Prize Laureates. Three of these are British, all of them in the field of nervous physiology. C. S. Sherrington writes for the *Britannica*, H. H. Dale for *Chambers's*, and D. A. Adrian for both. E. C. Kendall, an American winner of the Nobel Prize, writes the *Britannica's* article on *Adrenal Glands*. The *Britannica* unquestionably has the largest number of distinguished authorities among its writers on psychology. A number of them seem to be obvious first choices to write on the subjects they handle. *Chambers's* also has a distinguished group of writers,

The athletic temperament possesses, in some degree, the qualities of the sanguineous; but it is distinguished by superior strength and size of body, indicating the excess of the muscular force over the sensitive. The athletic man has less playfulness of mind, less activity of spirit, little elevation of purpose or fixedness of character; he is good natured, but if excited, ferocious.

—From the 1835 *Americana's* article *Temperaments*

though the number of psychologists among them is small. Their outstanding ability is clearly shown in the articles they write and is further borne out by their positions, memberships, degrees, and other honors. With certain exceptions, two of which have been discussed above, *Collier's* articles are by authors who are well equipped to handle the subjects with which they deal. These authors tend to be younger than those of the *Britannica*, and not as near their full stature as authorities. Their articles are generally brief and well written. Those of H. Schlosberg are among the best to be found in any of the encyclopedias in their clarity, accuracy, and finish. The *Americana's* coverage is rather uneven in quality and lacking in integration. Dashiell's articles have already been commented on, and it would be hard to overestimate their value. There are a few other psychologists who make outstanding contributions, but too often the *Americana's* articles are out of date or undistinguished.

IN his article on the *Britannica's* 11th edition, Titchener wrote, "The biographical articles seem to be much better done than the general run of the departmental and topical articles that we have been discussing." Today the reverse is the case, not only in the *Britannica*, but also in the three other encyclopedias under consideration. For the most part the biographies are very brief and are apt to include only the bare facts of birth, education, positions held, and death if no longer living. Sometimes the titles of a few publications are also given. Except in *Collier's*, the percentage of unsigned biographies is from five to twelve times as great as the percentage of unsigned articles. In *Collier's* all the biographies are signed, but most of them are by authors outside of the field of psychology, who are described as

free-lance writers. What one chiefly misses in most of the biographies is an attempt on the part of the writer to give an account of the subject's special work and what it was that made him important enough to have a biography.

In all of the encyclopedias there are some biographies, written by psychologists or writers in related fields, which are generally free from the limitations just described. The *Britannica* has six by W. B. Pillsbury, *Collier's* has 21 by F. A. Kingsbury, and *Chambers's* has 14 by F. C. Bartlett. These writers can generally be counted on to give an account of their subject's work as a psychologist. Bartlett, however, does miss the mark badly in his brief biography of William James, failing to recognize the great influence of James's thought in the development of modern psychology. By far the best biography of James is that in the *Britannica* by his pupil Horace Kallen. This finely-written contribution does full justice to James, both as a psychologist and as a philosopher. The *Britannica* has some other excellent biographies written by authors who have been closely associated with those about whom they write. Boring writes on Titchener, Langfeld on Stumpf, Ernest Jones on Freud, H. L. Ansbacher on Alfred Adler, and R. L. Thorndike on E. L. Thorndike.

In general, however, the biographies are disappointing, and there are also some surprising omissions. When *Collier's* first appeared, it lacked biographies of Wundt, Ebbinghaus, Külpe, Stumpf, and Ribot. In a later printing a brief biography of Wundt was added, but none as yet of any of the others. *Chambers's* lacks biographies of J. R. Angell, Thorndike, Watson, and Köhler. The *Britannica* also has no biography of Köhler, and is the only one of the four to leave out Dodge, McDougall, and Koffka. The *Americana* has no biography of Ebbinghaus. All four of the

encyclopedias, however, include biographies of Emil Coué, and the *Americana* devotes a half-page to the life of the Italian medium, Eusapia Palladino.

Why has this reversal occurred since Titchener wrote? It is not difficult to understand why the articles should have improved, but why should the biographies have deteriorated in comparison? The answer probably lies in the growth and other changes which have taken place in psychology. In 1911 the first psychological laboratory was only 32 years old. Since then psychology has grown enormously and the number of psychologists has increased manifold. In the days of the pioneers the individual was of high importance. As the science grew in bulk and complexity, the individual came to count for less, except at the top. It is more difficult now to determine just where that top is, and who is unquestionably there, than it was in the earlier time. There have also been reappraisals of the achievements of the earlier leaders in the light of later developments. One has only to think of the change in relative stature of Wundt and James as psychologists to realize this. Such considerations may make it possible to understand why the encyclopedias put less emphasis upon biographies today, and why they differ considerably from each other in the psychologists they select for biographical treatment.

WHAT may be said, in conclusion, about the adequacy with which the four encyclopedias perform the task of informing the public about psychology? It should be evident from what has been said that they do this by different methods and with different emphases. The *Britannica*, with its comprehensive and authoritative articles, would be the most interesting of the four to a psychologist, and the most helpful to a well-educated layman interested in behavioral science. *Collier's*, with its clear and simple handling of the subject, would be more helpful to the average reader, or to a beginner in psychology. In this respect the *Americana* would be closer in kind to *Collier's* than to the *Britannica*. *Chambers's* has something of the authority that characterizes the *Britannica*,

and would also tend to appeal to the scholar. The encyclopedia plan has a very real advantage. Whether a reader is looking for information on general psychology or on one of its many topics, he usually finds it in the main article. Here each part is considered in its relation to other parts and to the whole. This, of course, is a great advantage as far as the important factor of meaning is concerned; it gives to *Chambers's* coverage a certain depth, which is of real value to a patient, thoughtful reader.

Chambers's is the best edited of the four encyclopedias. There is a fine economy about its arrangement which contrasts with the sometimes extravagant duplication and overlapping that one finds in the *Britannica* and the *Americana*. One cannot escape the impression that *Chambers's* follows the advice of its expert, the Editor for Psychology, more closely than do any of the American publications. *Collier's*, starting from scratch, had a rare opportunity, and it could hardly have found a better person to guide its coverage of psychology than the late W. S. Hunter. We have seen something of the unfortunate consequences that have followed when his recommendations were not carried out. Even so, *Collier's* coverage of psychology is better structured than that of either of the other two American encyclopedias. The chief limitation of the program of continuous revision is that it is not possible to wipe the slate clean and start anew. After twenty years of this plan in action, the *Americana* and the *Britannica* still have a number of outdated articles. Moreover, no fundamental revision of a whole subject seems to be possible when it is a case of fitting each new article into the framework of the old encyclopedia. The program has its real advantages, but it is not an un-mixed blessing.

In spite of their limitations and their defects, the four encyclopedias do a fairly good piece of work in giving the reading public knowledge about psychology. For this their readers have mainly to thank the conscientious scholars who have written many of the articles so well. Indeed these writers sometimes go beyond the encyclopedias' requirement to give knowledge about their subject, giving in addition knowledge of it.

Electronics Oversimplified

Clinton C. Brown and Rayford T. Saucer

Electronic Instrumentation for the Behavioral Sciences. Springfield, Ill.: Charles C Thomas, 1958. Pp. xiv + 160. \$5.50.

Reviewed by ALBERT F. AX

who is Director for Psychophysiology in the Lafayette Clinic in Detroit. Since his Harvard doctorate in clinical psychology nine years ago, he has worked in the psychophysiology of emotion and of various psychiatric conditions at the University of Washington, at the Rockland State Hospital, and now at Lafayette Clinic. His major research has been on the physiological differentiation of fear from anger.

RESEARCHERS in the biological sciences do indeed need to know how to construct and operate electronic instruments. The authors, working in psychophysiological research for the Veterans Administration, are thoroughly familiar with the technical problems of instrumentation. In this little book they have presented basic electronic information which is relevant to the instrumentation of bioresearch. After a brief justification of instrumentation in research, two chapters provide an introduction to electronics and vacuum tubes and succeed as well as possible in the space allotted.

The chapter on power supplies is adequate. The discussion of amplifiers correctly stresses the need for direct coupling for the slow changing bioelectrical variables and points out the drift problem, but it fails to mention one of the most successful and popular solutions known as 'chopper stabilization.' Oscillators, timing circuits, and stimulus generators are fairly well covered.

The authors state: "The input transducer is probably the single most important portion of the research instrument. Its design requires the utmost of

engineering skill and ingenuity. It is a kind of gateway for behavioral information and only the information passing this gateway will ever be available as data." This is a fine statement; yet only ten pages are devoted to this most important topic. The discussion of the plethysmograph does not include the commonly used methods of air displacement, impedance, or direct pressure sensing. The description of transducers for the measurement of respiration omits the wire and the liquid strain gauges, the linear resistor, and the miniature differential transformer—all more accurate than the idiosyncratic method of carbon granules to which a full page is devoted. The palmar sweating electrode is not even mentioned, although there is serious difficulty in avoiding polarization drift. The complete lack of standardization of the GSR transducer, after nearly a century of its use, has resulted in a lack of comparability of the hundreds of published studies employing the GSR. At least, the novice should have been warned.

Recorders are briefly mentioned, but the modern light-beam oscillograph available in multiple channels from DC to above 5000 cps is omitted.

Transistor Theory and Application is a useful chapter, but its brevity should have been supplemented by more references.

This slim volume is a boy sent to do several men's jobs. A book twice this size is needed on transducers alone. A comprehensive handbook and a text for biological instrumentation are also needed. This book inevitably fails to provide "features of both a text and a handbook," but it is of value to the novice. Possibly this monograph's chief contribution will be to help define the field of modern biological electronic instrumentation for which specialists eventually will be trained.

(George Zacharopoulos, electronic systems specialist, served as consultant for the reviewer.)



The best argument is that which seems merely an explanation.

—DALE CARNEGIE

To See Ourselves as Others See Us

Neal Gross, Ward S. Mason, and Alexander W. McEachern

Explorations in Role Analysis: Studies of the School Superintendency Role. New York: John Wiley & Sons, 1958. Pp. xiv + 379. \$8.75.

Reviewed by DAVID W. LEWIT

Dr. Lewit is a member of the Department of Psychology at the University of Massachusetts in Amherst, Mass. He has been interested in social perception and role-playing for some years now—how people perceive the two triangles fighting for the circle in the Heider-Simmel film, how Boy Scouts perceive and judge the interests and beliefs of other Scouts, how competition works in a conference group of three men. He has been exposed to Cantril at Princeton, Hilgard at Stanford, and some of Kurt Lewin's disciples at Minnesota.

PSYCHOLOGISTS who set out to read *Explorations in Role Analysis* are likely to expect a psychological treatment of diverse role relationships analogous to the treatment of personality in Henry Murray's *Explorations in Personality*. They will find instead something more limited—a report of findings from a systematic survey of role perceptions among public-school superintendents and school-board members. Since the hypotheses and findings are not unusual, the chief value of the book is its methodological orderliness and its thoroughness of exploitation of interview data in an area deserving of continued exploration.

The authors are concerned mainly with the concepts of *role consensus* and *role conflict* and their correlates. Role consensus is agreement concerning role definition. It was measured by the consistency among respondents of what they expect of a person in a given position, viz., the school superintendent's position or the school-board member's position. The respondents were incumbents of these positions. Their expecta-

tions were recorded as degrees of agreement or disagreement with lists of hypothetical obligations of superintendents or boards. The items appearing on these lists were constructed after lengthy preliminary interviews with persons similar to the respondents.

Role consensus is noted at two levels—the *macroscopic* or sociological level at which sample variance is used as the measure, and the *microscopic* or psychological level at which variance among face-to-face group members is used as the measure. *Intraposition consensus* is within the sample (or within local-board) variance; *interposition consensus* is between samples (or between superintendent and the mean of his local-board) variance.

The authors give a number of hypotheses derived from stated assumptions consistent with the ideas of Talcott Parsons, Samuel Stouffer, George Homans, and others, relating these various forms of role consensus to selected *determinants*. For example, they found that consensus on the roles of both superintendent and school boards was correlated with a measure of the duration of interaction among school-board members, but that it was not correlated with duration of interaction between superintendent and school board. To explain this discrepancy the authors are inclined to accept the common-sense notion that professional persons compromise less with nonprofessionals than the latter do among themselves. They venture no psychological clarification of this notion—in terms of level of personal motivation or singularity of normative reference group. Besides interaction, such other determinants of role

consensus as attitudes and personal characteristics of respondents were relationally explored, with similar results.

By way of more correlations, the authors point to "consequences" of role consensus, like job satisfaction and respect for persons in the related position. Of course the inference that these factors are actual consequences of consensus concerning mutual roles cannot be made from correlational evidence alone. Unfortunately no sufficiently detailed historical data are presented to establish cause-and-effect relations.

Perhaps the most interesting part of this book is a theory of the resolution of role conflict presented in the concluding chapters. By *role conflict* the authors do not mean antagonism between persons playing the same roles. Their term *conflict* is instead similar to Leon Festinger's *dissonance*—it refers to the knowledge which a person has that persons or groups with whom he interacts have incompatible expectations regarding his role behavior. By *resolution* the authors refer to any of four responses to community group pressures, i.e., yielding to pressure, sticking to professional standards, making compromises, or avoiding the responsibility of making relevant decisions. The probable response, according to the theory, is a function of (a) the perceived legitimacy of each expectation, (b) the perceived reward or punishment value of carrying out each expectation, and (c) the morality or practicality of the person, as measured by the extent to which he answers questions about role obligation as "absolutely must (or must not)," "preferably should (or should not)," or "may or may not." Measures of responses and predictor variables were obtained by coding interview or questionnaire responses. The chance probability of each of the four response-to-conflict alternatives was taken from the actual frequency of their occurrence in the total sample of superintendents, and the theory was found to account much better than chance for the variation in these responses. This conclusion would be more impressive if more than four response alternatives

had been predicted by the three predictors.

Gross, Mason, and McEachern are to be praised for their explicitness in stating hypotheses, their rigor in gathering data, their thoroughness in presenting results, and their orderliness in discussing inconsistencies between data and hypotheses. Nevertheless their book is disappointing in several respects.

First, the precision of measurement of "role consensus" is not matched by the importance of consequences they predict. These consequences do not go beyond verbal expressions of satisfaction or subjective evaluation of role performance. Furthermore the generality of the relevant hypotheses is doubtful. Consider for example the hypothesis: "The more consensus there is within a group of incumbents of the same position, the more highly will the group's performance be rated by the incumbent of a position counter to that of the group members." This hypothesis was supported by a correlation coefficient of 0.33 between superintendents' proficiency ratings of their boards and consensus among board members concerning their obligations and the obligations of the superintendent. One wonders whether this hypothesis would hold for teachers' ratings of students, authors' ratings of critics, engineers' ratings of sales managers, etc. The reader is left to speculate for himself about power, varieties of interpersonal contact, and reference-group relationships as conditions qualifying the hypothesis. Furthermore the size of this correlation coefficient is not impressive, and few of the other coefficients turned up by the authors are larger.

Second, no observations of the actual role performance of superintendents or board members were reported. Granted that a study may be based upon survey findings, the reader might still expect that observations of behavior would be made to validate the interview instruments that elicit reports of role behavior. Beyond this, of course, is the observation of behavior in the field or laboratory in an effort to determine mechanisms responsible for postulated relationships involving role consensus.

Third, the authors reveal a sort of ethnocentrism with respect to interre-

lated positions in the social system, favoring the judgments of the superintendents over those of the school-board members. Only the responses of superintendents were used in assessing the motivations of school-board members in seeking election, a "determinant" of interposition consensus to which the authors devote considerable discussion. Only the superintendents' morality or practicality and not that of the board members was posed as a consensus determinant. Superintendents' responses and not those of board members were used as conformity standards for the latter, and the satisfactions of the board members were neglected relative to those of the superintendents. In checking the theory of resolution of role conflict, only the perceptions of the superintendents were used.

LAST, the authors considered a rather limited set of mechanisms for the resolution of role conflict. In addition to the four mechanisms with which they deal—yielding to pressure groups, taking professional action, compromising, and withdrawing—they might also have considered more interesting mechanisms, such as manipulation of the pressure groups, redefinition of roles, and quantitative or qualitative changes in personal motives or objectives. Such mechanisms would relate more closely to extant theories of conflict resolution. The authors' conceptualization of "role conflict" is also rather severely limited by being strictly phenomenological even when objective measures of cross pressures upon a superintendent would not be so difficult to obtain.

Yet despite these limitations, the book spells out in detail a thoroughgoing concept-conscious and method-conscious approach to survey research. The authors have taken a very evasive bull by the horns and backed it into the analytical arena.



The real purpose of books is to trap the mind into doing its own thinking.

—CHRISTOPHER MORLEY

The Ego as a Going Concern

John Money

The Psychologic Study of Man.

Springfield, Ill.: Charles C Thomas, 1957. Pp. xi + 216. \$4.75.

Reviewed by IVAN NORMAN MENSCH

who is now Professor of Medical Psychology in the School of Medicine at the University of California at Los Angeles and Head of its Division of Medical Psychology. Recently he has been consultant to the St. Louis County Health Department, and before that he has been since World War II involved with research and administration in medical psychology for the government and in professional committees.

SCORES of texts have been written in the various fields of psychology because their authors have felt that it was high time to raise the level of communication of content. This motivation frequently has had as a corollary the introduction of new terminology because of the authors' dissatisfactions with current or recent professional and scientific language. On occasion, the new terminology does not constitute neologisms; rather it presents new usage or adaptation of already-existing language in a context different from prior custom. Surprisingly, or not, dependent upon the reader's mood and attitude, the author's point is then made once the reader accomplishes his translation of the author's language into language more familiar and more comfortable to himself.

The layman and beginning student will indeed be able to say "ah, yes" as Money describes various adjustive behaviors. Readers with more extensive background may question the necessity of *sign decipherment* and wonder why more conventional verbal symbols and signals would not be equally satisfactory. For both beginner and the experienced, there seems some question about the communication value of "human

sign-clusters . . . neither physiosomatic contingencies nor canon codes . . . may be called rebus codes."

Another intrusion occurs because the studies of Money in collaboration with the Hampsons at The Johns Hopkins Hospital are so insistent that the psychology of hermaphroditism, not a common condition, becomes the primary vehicle of this discussion. The special conditions of this disorder suggest that some other disease, one of greater frequency at least, might have been a more appropriate context for elaborating the author's concepts. Though Money uses other psychiatric diseases as examples, hermaphroditism creeps into his text in an amazing number of ways.

Money's doctoral thesis on *Hermaphroditism: An Inquiry into the Nature of a Human Paradox* (Harvard, 1952), Lawson Wilkins' interest in pediatric endocrinology, John C. Whitehorn's psychiatric training and orientation, and a Josiah Macy, Jr., Foundation grant which integrated these several directions, constitute the background for the text. Also, Money's initial appointment as Instructor in Psychiatry (1951-55) and his current appointment (1955-) as Assistant Professor of Medical Psychology in the Departments of Psychiatry and Pediatrics at Johns Hopkins, and his crossing departmental lines to study case material from the pediatric endocrine clinic of The Johns Hopkins Hospital, point to the increasing influence of psychology and the other behavioral sciences in the field of medicine.

THE introduction of the behavioral sciences into psychiatric education and practice, especially the greater emphasis upon and understanding of sociocultural factors as they are related to mental health and illness, is reflected in Money's discussion of human behavior. Cappon's recent report and Money's study of hermaphroditism, in collaboration with the Hampsons, both stress the psychosocial variables in diagnosis and treatment of hermaphroditism, although their conclusions do not agree. The frequent mention of physiological function and of learning phenomena introduces two more areas in what is reported by

the author as a "Linnean approach," descriptive but not "speculatively explaining behavior on the basis of conjectured causes." The attempt to integrate psychological, social, and physiological variables in the study of human behavior has long bedeviled writers. Money's integration again does not seem quite to come off, for no smooth transition appears as the text moves from one class of variables to the next, as it does in the description of epilepsy, its aura, its physiological substrate, and the behavioral response of the patient.

PERHAPS the major contribution of Money's "psychologic study of man" is his ability to select experiences common to the general population and to relate these to his interpretations of their significance. Thus he uses dreams, gambling, depression, fatigue, and imagery, among other common experiences. He presents ecologic studies of critical periods of development, and they, too, provide data of increasing interest in psychiatric training. A recognition of the importance of life-history experiences, not only those of early childhood, and the awareness of the multiplicity of variables in the formulation and analysis of human behavior introduce other data which have had a long and honorable history and are now again predominant in current psychiatric and psychologic research. Finally, it must be said, Money's cross-cultural references to behavioral phenomena afford still more material significant to the understanding of human behavior. Depending upon his theoretical orientation, the reader may see these contributions as outgrowths of psychoanalytic theory, arguing that Freud and his followers had reported all of these concepts over the past decades, or as recent evidences of the impact of the behavioral sciences upon psychiatric thinking and practice, especially in this specialty-area of medicine.



A book may be as great a thing as a battle.

—BENJAMIN DISRAELI



ENCYCLOPEDIA PSYCHOLOGY

ENCYCLOPEDIAS. They form an important avenue to general education, in many instances letting the expert talk directly about his subject to an interested public. It is quite often that the busy investigator finds the time and stimulus to undertake this assignment in teaching, flattered perhaps at being asked, willing enough presently to accept the proffered check, and yet at the end frequently frustrated for lack of feedback. Scholars do not really write just for money, welcome as it is when it comes. They want prestige and recognition. The scientist who slaved over the preparation of a long important article for an encyclopedia, who made the deadline and got then what he thought was a biggish check, became more and more indignant as the years went by and his article remained unpublished. He had not written solely for the pay; he wanted prestige and recognition too. (And he got them eventually, when the article was published six years later, a little tarnished by time, but still his very own creation.) Whoever wrote a fan letter to the author of an encyclopedia article? And how can you write a fan letter to the author of an unsigned article? If we could get more feedback from encyclopedia readers, we might get more good articles and even some better ones.

In this issue John T. Metcalf has achieved a review of the treatment of psychology in four dominant English-language encyclopedias. Titchener made this assessment in 1912 for the 1911 *Britannica*, but *CP* knows of no other good review of a subject in an encyclopedia. So *CP* asked Metcalf to do the job, a job that 'never' gets done, and Metcalf spent two years (between meals only) doing it. Now *CP* thinks it has a scoop. But more than that, *CP* and

Metcalf are now really able to give the encyclopedia authors their earned feedback, the recognition of important work well done that is the primary goal of almost every academic idealist. We need to have more such reviewing if this special sector in the great web of scholarly communication is to be strong and effective.

NO HOBGOBLIN FOR *CP*

PEOPLE wonder about *CP*'s philosophy, wonder whether its policies are consistent with one another. And of course they are not. *CP* is not going to let any hobgoblin play hob with its ideas, which, like the pictures in a museum, adorn the corridors of its mind, each beautiful in itself but insensible of its neighbor's charm. In generalist general *CP* cultivates a biased neutralism. In this respect it is like the university that seeks in its appointments men with different and opposing ideas, so different that in the clash of theses with antitheses the student, forming his own syntheses, may take his first step toward becoming a scholar. That sounds neutralist, does it not? And yet the policy is biased. Let the professors be different and complement one another, says the policy. So you appoint a bright professor. Do you then seek his antithesis for the next appointment? And what do you do about honesty? Is it too dull to have all of your professors honest? Prejudices like these, the ones you do not know you have until they are challenged, make hopeful this kind of endeavor to become civilized.

Mostly *CP* is more friendly to the majority than to the minority. Majority of whom? Well, its readers. Really, they must come first. *CP* is their servant—most of the time—when there is no chance or occasion for *CP* to be their leader. Certainly *CP* feels less re-

sponsibility for its reviewers and for its book authors than for its readers. So *CP* does its best to find a good reviewer and lets him go to it, with the admonition to avoid the *ad hominem* and stick to the *ad verbum*, if possible. It is not always possible, not with words being uttered by people as they usually are. Try as you will, the reviewers turn out to be human beings, idiosyncrats (*idiots* really; too bad that word got spoiled, for the antithesis to *nomothesis* ought to be *idiocy*). Anyhow the reviewers inevitably turn up biased—protagonists, antagonists, or just plain strugglers (agonists) for truth and fair play. *CP* eggs the reviewer on, and then, with the review published, it runs into a guy who says, "This review is terrible." "That's wonderful," thinks *CP*, "now we have a chance for the sort of intellectual conflict that wakes the mind from slumber's sweet acquiescence." *CP* is quite capable of egging on two antagonists, advising each how he may annihilate the other. All *CP* insists upon is that they be bright, well informed, sincere, and honest. This is the crucible conception of *CP*. Gold comes from fire, but you need the right ingredients to start with.

(And do not say, please, that *CP* is being redundant to list both sincerity and honesty among its basic virtues. *CP* used to know a spirit control whose mission it was to convince those who had not yet passed beyond of the existence of the spirit world. He was sincere, but he was not honest. He would cheat that truth might prevail, prestidigitating his séance circle into belief by devices no more spiritual than Houdini's. It was like the faked lecture demonstration. If you know the truth and your mission is to educate the class, put your little finger on the thread to make the muscle twitch when nature fails you.)

Sometimes *CP* does not surrender to the majority of its readers. An instance is its attitude toward parapsychology. That poor overwrought topic! It's been batted around by antagonists and protagonists until the facts are lost in the turbulence. *CP* is determined to review the less fantastic books in parapsychology, the ones that present their facts in the pattern accepted by science today, provided it can find a reviewer who

respects sincerity and honesty on both sides of the issues and will guide the readers' vision to see just what is toward. *CP* has had a little success in this regard and will keep on trying. It realizes it is not being very brave, for it perceives the course of the changing Zeitgeist. Parapsychological bitterness is diminishing all around, and *CP* knows itself to be just the Zeitgeist's agent. It is a little late now. William James had courage, but where was *CP* then?

—E. G. B.



Quite a Lot About Personality

Louis P. Thorpe and Allen M. Schmuller

Personality: An Interdisciplinary Approach. Princeton, N. J.: D. Van Nostrand, 1958. Pp. v + 368. \$5.50.

Reviewed by JAMES BIERI

who is Associate Professor of Clinical Psychology on the doctoral faculty of Columbia University's New York School of Social Work. Before that he was Lecturer in Clinical Psychology at Harvard University. He teaches personality theory at the graduate level, advises graduate students on their research, prefers the cognitive-perceptual approach to the problems of personality.

THESE authors state that their approach to personality is a "patterned eclecticism" and that their aim is to present material which will have "practical value" for the student. Written as a text for courses in personality, the book presents material from many fields of science—genetics, endocrinology, sociology, and anthropology, as well as psychology. There are also chapters dealing with the impact of the home and education on the formation of personality. The section on the role of education reflects the background of the authors, one of whom (Schmuller)

formerly taught education at Los Angeles State College and is now in personnel work. Thorpe is Professor of Education and Psychology at the University of Southern California, and has written texts on child development, learning theory, and mental health.

The task undertaken by the authors is a staggering one. They undertake to indicate the importance of a variety of disciplines and areas of research in the understanding of personality, then to discuss theories of personality, including psychoanalytic theories, learning theory, field theory, trait theory, and typologies, and finally, to provide empirical evidence from research studies bearing on the validity of these various approaches to personality. The reviewer finds the result is unsatisfactory.

The book is interspersed with fragmented, uninterrelated material which is often poorly organized. For example, following a ten-page discussion of gene theory, but four sentences are used to suggest the relationship between genetics and personality. In the chapter on motivation and personality, there is a two-page section headed *The Achievement Motive* in which the only specific reference to this area of personality research is contained in a footnote. More serious, however, is the failure to suggest, even tentatively, how these various approaches to personality may be interrelated. Thus the plethora of topics covered is likely to give the student an appreciation of the complexities of personality, yet leave him puzzled as to how to proceed to organize his thinking. In short, it is difficult to discern a pattern in this eclecticism.

Recent books, such as Monroe's *Schools of Psychoanalytic Thought* and Hall and Lindzey's *Theories of Personality*, provide more intensive and comparative analyses of the theoretical approaches covered by Thorpe and Schmuller, who would have done better to try to relate their discussion to those other more complete sources than to attempt to say everything in too little space.



Pointless research is not necessarily basic.

—BRYCE O. HARTMANN

Casual Thoughts by a Great Man

Karl Mannheim

Systematic Sociology: An Introduction to the Study of Society. (Ed. by J. S. Erös and W. A. C. Stewart.) New York: Philosophical Library, 1958. Pp. xxx + 169. \$6.00.

Reviewed by BERTRAM H. RAVEN

who is Assistant Professor of Psychology at the University of California at Los Angeles. He has worked at Michigan's Center for Group Dynamics and also at the Universities of Nijmegen and Utrecht. He reviewed for *CP Israel's* Self-Evaluation and Rejection in Groups (May 1957, 2, 148).

IN order to examine social facts, the sociologist must first understand the "psychological equipment of man"—instincts and habits, emotions and libido, interests and abilities. Next he must consider the most elementary social processes, such as contacts, distance, hierarchy, division of labor. All of these must finally be related to the "nature of social integration" in such social phenomena as crowd, group, and class. This is the essence of *Systematic Sociology*. The first third of the text gives a very cursory, elementary, and now outmoded view of psychology—Dewey, James, Freud, and W. I. Thomas' four wishes. The remaining discussion of elementary social processes, social integration, social stability, and social change is also at a very low armchair level, with anecdotal support of common-sense statements and occasional references to Cooley, Marx, Simmel and a few others. There is nothing unusual or exciting here.

One wonders how the author of *Ideology and Utopia* and *Man and Society*, with his many stimulating contributions to the sociology of knowledge, can also be responsible for this volume. The answer—he cannot be held responsible for its publication. What we have here

are some posthumously edited lectures, given by Mannheim at the London School of Economics just after he fled Germany in 1933. Presumably, they were meant as an introduction to sociology for a relatively unsophisticated audience. Thus the biggest question raised by this book is why it was published at all. Must every word uttered by our great thinkers be recorded for posterity? Certainly posthumous publications such as those of George Herbert Mead and Harry Stack Sullivan have served important purposes for so-

cial psychology. But Mannheim was not averse to publication, and produced several books and articles in the thirteen years following his London lectures. His ideas about the relationship between sociology and psychology, suggested vaguely in his *Systematic Sociology*, were later developed more thoroughly in his *Man and Society* (1940). Obviously, Mannheim did not consider the material in the present book as of suitable quality for publication. The editors might have served him better if they had felt similarly.

The task of selection and organization of material, always great, becomes enormous from edition to edition in a field like this where activity goes on at an accelerated pace. Anastasi has done well with this responsibility. Each edition has been better than its predecessor. The second, which had Foley as a co-author, contained four more chapters than the first and nearly twice as many words. The present edition has six fewer chapters and perhaps 60,000 fewer words than the second. Perhaps two heads are wordier than one.

Even more condensation and elimination could have been done with profit. Although the author notes in the preface that differential psychology is not a separate field of psychology and that the fundamental questions are the same as those of general psychology, it is hardly likely that this volume will be the text for a first course. If it were to be considered for an advanced course, then there would be quite a little content that is too elementary. Surely the student will by then have encountered a frequency table, the normal curve, a description of the mechanism of heredity (chromosomes and genes), and growth curves. Many of the studies referred to will almost certainly have been included in the first course in general psychology. Omission of these elementary things would leave space for others which the author undoubtedly omitted with reluctance. For instance, she might have included something about character types derived from psychoanalytical theories.

Perhaps it is a sign of age in the reviewer that he notices, here and there, the omission of specific references to persons which were present in earlier editions. For example, Otis no longer is mentioned in connection with the Army Alpha examination, Stern's contribution to the concept of the IQ is forgotten, and Adler is not identified with the theory of genius as compensation. The concepts are retained but the identifying names are gone. Such is without doubt the way of history—a means by which one achieves anonymous immortality—and it is one reason that older teachers discover that their students know so little of those who made early contributions to their discipline.

Why Are People Different?

Anne Anastasi

Differential Psychology: Individual and Group Differences in Behavior. (3rd ed.) New York: Macmillan, 1958. Pp. xii + 664. \$7.50.

Reviewed by D. A. WORCESTER

Dr. Worcester, who is Professor Emeritus of Educational Psychology and Measurement from the University of Nebraska, is at present Visiting Lecturer at the University of Wisconsin. He was professor at Nebraska for nearly thirty years and chairman of its department for twenty-two during the period when the department developed special educational procedures for speech defectives, the mentally retarded, the physically handicapped, and the gifted. Nebraska was then one of the few places where teachers could get special training in teaching classes of gifted children.

DR. ANASTASI, who since 1951 has been a professor at Fordham University, is not one who merely writes about what others have done. She has labored valiantly in the field herself and refers to her own work in 14 of the 18 chapters of this book, citing 19 titles published over the span of years beginning in 1934. At least 10 of her contributions to the literature have been made since the appearance of the second edition of her book in 1949.

Others have been active too. A check of the references for a few chapters

yields a rough estimate that 40% of the more than 1,500 listings are dated since the earlier revision—some of them as late as 1957. By no means all of studies named, however, are reported. Anastasi disclaims any intent that the book constitute a survey, and in many instances she is content merely to tell us that a given person has done much work in the field. The references are there, though, for the one who wishes to consult more of the evidence; and there is a good coverage of researches which have received special attention because of their significant findings, their particular methodology, or their controversial implications.

One cannot, of course, in a book designed as a text for a one-semester class, examine all that has been written concerning the heredity-environment problem, the relationship of physique and physical constitution to personality, the influence of cultural background on behavior, the nature of genius, the characteristics of the mentally retarded, the psychological differences associated with age, sex, and race, adding an exposition of research methods and statistical techniques necessary to secure valid evidence on all of the questions involved.

One of the strongest features of the book is Anastasi's clear, incisive critiques of the methods used in the researches reported and the conclusions drawn from them, but she does not hold equally exact standards in all instances. The inadequacies of Sheldon's work on constitutional types are emphasized much more, for example, than are the lacks in Schmidt's report of the rehabilitation of mental defectives.

In general, however, Anastasi has succeeded admirably in attaining her primary goals. She has given clear expositions and careful examination of concepts fundamental to understanding the factors which influence the behavior of individuals and groups. She has used reports of many researches—selected both among those well and those not so well designed—to illustrate the methods by which the problems of differences in behavior have been investigated. And she has used these studies with a high degree of skill to aid the student to become proficient in the analysis of problems, in the recognition of the tremendous complexity of behavior, and in the extreme caution which must be observed before concluding that a particular difference in behavior can be attributed to a specific cause. She has succeeded so well in this last objective that it is not improbable that many, if not most, students upon reading the book will leave it with the question, "Is there *anything* that we know for sure?"

Anastasi's technique is usually to go at her objectives separately. Fundamental concepts are developed, research methods analyzed, results displayed and conclusions examined in successive chapters. This procedure leads to contrasting effects. It can be confusing to be told in one chapter what is the nature of the problem, with the information that in another chapter the method of getting at the problem will be explained, and that in still another place one can find out what happened. When several studies are discussed in each of these chapters the plot can be difficult to follow. On the other hand, the technique is logical and does produce a treatise in which the parts are closely integrated.

The student who systematically works through this book will have had a splen-



ANNE ANASTASI

did opportunity to develop his critical thinking. As a text, its best use will be with advanced students. Many of us, moreover, will want it on our shelves for reference.

Color in Art and Life

Ignace Meyerson (Ed.)

Problèmes de la couleur. (Exposés et discussions du Colloque du Centre de Recherches de Psychologie comparative tenu à Paris les 18, 19, 20 mai 1954.) Paris: Service d'Édition et de Vente des Publications de l'Éducation Nationale, 1957. Pp. 372. 2170 fr.

Reviewed by M. H. PIRENNE

who has for quite a number of years now been pursuing research in vision in New York, Cambridge (England), London, Aberdeen, and now at Oxford, where he is demonstrator in the University Laboratory of Physiology. He has a DSc in chemistry and physics from Liège, a PhD in biology from Cambridge, as well as an MA from Oxford. He has worked with P. Debye, Selig Hecht, and F. C. Bartlett, and in 1957 he was Vice-president of the Comité international de Photobiologie.

THIS most valuable book seems to be unique of its kind. It consists of the proceedings of a Colloquium held in Paris in 1954 to discuss problems relating to the use of color in the art of painting, in architecture and in the theatre, as well as the vocabulary of color in Chinese, Sanskrit, Greek, Latin, Hebrew, Aramaic, and New-Caledonian. These studies are preceded by an examination of various aspects of the physiology and psychology of vision. Thus twenty-three papers were read by physicists, physiologists, psychologists, artists, scientists dealing with the manufacture of paints, specialists in the use of color in factories, art historians, and philologists. The discussion which followed each paper is reported in detail—an important feature of the book. Bibliographical references are given for a number of the papers, but in some cases they are missing, a fact which is to be regretted on account of the wide scope of the colloquium. This is the only criticism which can be made concerning the production of the book, which is carefully printed and contains 15 color plates in addition to line illustrations. It took three years to get the volume published, but now that it has appeared this delay hardly affects its value.

Monnier, Kellersohn, Le Grand, Galifret, Musatti, Kanizsa deal with various aspects of the physiology and psychology of normal and anomalous color vision. Malrieu studies color perception in children. Then F. Léger, the artist, deals with color in architecture. Rabaté and Guillot with problems of the fabrication and use of colored paints, Grodecki with stained-glass church windows from the XIIth to the XVIth century, Mlle. Dumarest with experiments on color harmony, Mme. Jonckheere with the use of color in factories, Duvignaud with color and lighting in the theatre. Francastel discusses color in contemporary painting and Habasque the use of simultaneous contrast in painting during the last hundred years. The six remaining papers are devoted to philological studies by J. Gernet, L. Gernet, Filliozat, André, Guillaumont, and Métais. A summarizing paper by the general editor, Ignace Meyerson, ends the colloquium.

The aim was to restrict the collo-

quium to one subject, color, but to study the subject in a number of broad and important contexts. The concept of color for the physicist, the psychologist, the artist, and the art historian may have quite different implications. The present attempt to find a common ground, although it cannot be claimed to have been entirely successful, is as rare as it is commendable. It is intriguing, for instance, to have a discussion of the evolution of the art of stained glass taking into account problems of luminosity, irradiation, chromatic aberration, and color mixture, as well as the Purkinje phenomenon as a result of which the blue parts are emphasized when the light illuminating the window is dim, whereas the red parts are emphasized when the light is bright. In the case of a paper of this kind the full report of the discussion is invaluable.

As stated in the Foreword, the aim of the colloquium was to study the history of human perception, built up of continual interactions between man and his environment. The environment is in some respects altered by the action of man itself, while conversely the psychological make-up of man is affected by the changing environment. The concluding paper by Meyerson, however, brings to mind controversial points arising in the fulfilment of such a program, some of which are already apparent in papers on the evolution of painting. Thus Meyerson states that "colour creates new kinds of spaces, not simply nor even principally depths, but rather overlappings, imbrications, equivocal planes; one is tempted to say, new dimensions. Through colour, painting is today building a kind of new 'geometry' of its own, which is not the reflection of any mathematics either of today or yesterday." No doubt we find here an echo of familiar commentaries on modern art. But the specific question might have been asked: Would it not be possible for Euclid, if he were born again today, to fit into the scheme of his *Optics* the works of art under discussion? The present reviewer thinks it would be possible; Meyerson may think that it would not. The question was not discussed at the colloquium.

TWO NEW BOOKS in a Series on Psychology under the general editorship of Dr. J. McV. Hunt, Professor of Psychology, University of Illinois . . .

MOTIVATION: A SYSTEMATIC REINTERPRETATION

DALBIR BINDRA, McGill University

Offering descriptive and interpretive concepts that make possible a unified approach to all behavioral phenomena, this important new textbook presents a thorough and systematic integration of the varied experimental findings emerg-

ing from recent research in the field of motivation. It carefully describes the nature of motivational activities, their development in animals, and the factors determining their actual occurrence. 27 illus., 361 pp. \$5.50

GROUP DYNAMICS —PRINCIPLES AND APPLICATIONS

HUBERT BONNER, Ohio Wesleyan University

The first systematic survey of an important new discipline, this textbook discusses the dynamics of small group behavior, its problem areas, and its practical applications. It sets forth the origins and background of the field, its theoretical framework, and con-

cludes with a penetrating critique of the basic achievements and weaknesses of group dynamics. Includes descriptions of field experiments; concrete analyses of personality dynamics, group psychotherapy, mutual dependence, etc. 531 pp. \$6.50

Other outstanding textbooks . . .

PERSONALITY—Development and Assessment

CHARLES M. HARSH, U. S. Navy Electronics Laboratory, San Diego; formerly Professor of Psychology, University of Nebraska; and H. G. SCHRICKEL, State Teachers College, North Adams, Massachusetts

Just published! Second Edition of this popular textbook presents the basic data, theory, and methods necessary for understanding the psychology of personality. Treating the personality as a pattern of system functions, the book describes the emergence and development of the self from infancy to

old age. Emphasis is placed on such concepts as sensitization, arousal, and response elicitation. Book reviews theories of personality and methods of assessment; reflects the current emphasis on self theory, Q-sorts, and better designs of factorial and experimental studies. Illus.; 557 pp. \$6.75

THE ABNORMAL PERSONALITY

ROBERT W. WHITE, Harvard University

Designed for the beginning course in abnormal psychology, this standard textbook presents the study of disordered personalities as it relates to a larger understanding of human nature. Topics covered include psychotherapy, delinquency, psychosomatic disorders,

brain injuries, the major psychoses, etc. "Without question the best available text on abnormal psychology today. Quality . . . will guarantee its leadership for years to come."—Peter Madison, Swarthmore College. Illus.; 644 pp. \$7.00

COUNSELING: THEORY AND PRACTICE

**HAROLD B. PEPINSKY and PAULINE NICHOLS PEPINSKY
—both The Ohio State University**

This textbook for the introductory course in counseling on the advanced college or graduate level, presents the counselor as a researcher as well as a practitioner. Applying theory to practice, it surveys current approaches, illustrates the value of theoretical orienta-

tion, examines factors contributing to the counseling situation, etc. The authors illustrate their discussion with detailed case histories. "Well-written . . . to the point."—Stanley S. Marzolf, Illinois State Normal University. Illus.; 307 pp. \$5.50

THE RONALD PRESS COMPANY • New York 10, New York

Meyerson also states that the perspective of the Italian Renaissance is not based on Euclid. Yet, as the art historian Decio Gioseffi has shown recently, the perspective of some of the paintings from Pompeii and the perspective of the Renaissance are essentially the same, and both are based on Euclid's *Optics*. In any case the empirical contents of Euclid's *Optics* and *Geometry* are as valid today as they were 22 centuries ago. In this respect the human environment has *not* changed—if it had, no astronomical computation could be carried back to ancient times. Here it is only the method of application to art of man's empirical knowledge of his environment which has varied during history.

The problems discussed in the two

preceding paragraphs are specifically mentioned only in the concluding paper. For this reason they did not call for discussion at the colloquium. Yet they might be worthy of a whole colloquium devoted to themselves. And they pervade the discussions on the relationship between the evolution of science and the evolution of art. The present colloquium, however, was meant only to be a beginning. It will stimulate further thought and discussion on intricate problems to which it contributes a great amount of objective information not to be found gathered in any other single volume. The willingness of many specialists in such different fields to descend together into the same arena is a hopeful sign and a cheering example.

sible that at present certain kinds of understanding can come about only through the risks involved in "loose thinking." . . . Some phenomena can be more truly described in larger and more flexible terms than in more minute and unyielding ones. Shame and a sense of identity are among the phenomena that must be reached in part through such methods.

Accordingly, believing that "a language that is . . . confined to denotation at the expense of connotation does not have the means of expressing experiences whose nature includes ambiguity and surplus meaning," Mrs. Lynd turns to literature as the principal basis for analyzing the concepts of shame and identity. Her aim, she states, is not "to build up any logical or perhaps even consistent definition of shame," but to "approach the feeling of shame from different directions and in different ways." From a fascinating survey of references to shame and guilt principally in the Bible, in Shakespeare, and in Russian, English, and American novelists (she makes no mention of non-Western thought about these topics), she arrives at the conclusion that, unlike guilt, shame involves "a sudden awareness of the incongruity between oneself and the social situation" through "awareness of transcultural values beyond one's society." "Shame," she asserts, "is doubt, including a diffused anxiety, an overall ashamedness, a consciousness of the whole self, a feeling that life is happening to the individual." In these ways it is different from guilt, which "is more related to specific acts, going against specific taboos." And, above all, it is shame rather than guilt which permits the development of a sense of "identity."

THE concept of identity is admittedly even more elusive. Mrs. Lynd prefers the formulation of Ericson who "uses the term with multiple connotations which include: Unconscious and conscious strivings for continuity of personality, a tendency for synthesis beyond even unconscious striving, a criterion for the outcome of this striving and this tendency, a maintenance of congruence with the ideals and identity of one's social group, a conscious aware-

In Dispraise of Fact

Helen Merrell Lynd

On Shame and the Search for Identity. New York: Harcourt, Brace, 1958. Pp. 318. \$5.75.

Reviewed by URIE BRONFENBRENNER

Dr. Bronfenbrenner, who for a decade has been Professor of Psychology and of Child Development and Family Relationships at Cornell University, is just at present trying to discover the effects of the values and roles of parents on the behavior of the adolescent child. That means, he says, that his current interest lies in the place of facts in a world of values, not quite the same thing as the place of values in a world of facts. He has already reviewed in CP Soddy's *Mental Health and Infant Development* (Oct. 1956, 1, 312) and Brody's *Patterns of Mothering* (Feb. 1957, 2, 37f.).

THE title of this volume does disservice to its scope, for, in Mrs. Lynd's treatise, the concepts of shame and personal identity serve but as points of departure for a sweeping critique of modern conceptions of personality and its development. Although the formulations she calls into question are primarily psychological, her frame of ref-

erence is not. Mrs. Lynd has an enviable repertoire of scholarly roles. Trained in history, psychology, and philosophy, she has taught and written in all these fields and, in addition, as co-author with her husband of the classic studies of Middletown, has won fame as a sociologist. Yet, although she draws heavily and impressively on her knowledge in these varied disciplines, she turns elsewhere for the procedural and substantive bases of her critique. The methods and values which she employs and applauds are, in this reviewer's judgment, less those of science or even of social philosophy, than of literary criticism.

First as to methods: Mrs. Lynd would alert us to the virtues of "loose thinking." She states (p. 125):

In an effort to establish themselves as sciences, psychology, early psychoanalysis, and in some areas the social sciences have emphasized tight thinking, analogies from the physical sciences, unambiguous data, and methods of minute precision. It is pos-

ness of who one is." If the reader be somewhat baffled by this formulation, Mrs. Lynd would reassure him.

This ambiguity, this multidimensional character, of the term identity is not, I believe, a drawback in its use. . . . Its very ambiguity, the surplus meaning it carries, makes it more accurately descriptive of the awareness of "I" that may emerge from the process of integrating life experiences than the narrower conceptions of self and ego.

What brings Mrs. Lynd to her somewhat paradoxical position? The answer is to be found in her deep discontent with present-day theories of personality, a topic to which she devotes the main body of her book. Here the approaches of orthodox psychoanalysis no less than those of stimulus-response are scored for sins of oversimplification, reductionism; excessive objectivity, depersonalization, absence of a historical frame of reference, neglect of "the symbolic possibilities of language," and, above all, reliance on a compensatory as against a positive view of human motivation. The principal perpetrators of these errant views turn out to be an impressive if somewhat diversified company, including among others, Aristotle, Mill, Freud, Hull and, among the living, Whiting, Sears, McClelland, and Parsons. If one eliminates the novelists and poets, Mrs. Lynd's heroes are more restricted in number, time, and intellectual tradition; one might characterize them as the idealistic post-Freudians: Jung, Goldstein, Schachtel, Sullivan, Fromm, Hartmann, Erikson, Murray and, above all, Paul Schilder.

Mrs. Lynd's arguments against current theories of personality are very similar to those so eloquently developed by Wolfgang Köhler two decades ago in his essay on *The Place of Value in a World of Facts*. Indeed, both authors use the same phrase to designate the basic orientation with which they take issue—the philosophy of "nothing-but." But, though agreeing on the problem, they differ radically on its solution. Unlike Köhler, Mrs. Lynd has little interest in the "world of facts." While Köhler advocates a scientific phenomenology in which values are studied as legitimate objects of systematic observation and experimentation, she seeks an answer



HELEN MERRELL LYND

—Lotti Jacobi

within the realm of ideas itself through a search for what might most plainly be called absolute values. We are to find these, apparently, through reliance on our sense of shame, since it alone can transcend cultural relativism. Perhaps so, but this reviewer is disturbed by a curious coincidence. The values which Mrs. Lynd so painstakingly educes from the writings of her heroes, both literary and psychiatric, bear a striking resemblance to those of the Judeo-Christian tradition, liberally interpreted; thus they include "the possibility of mutual discovery and love between persons," "loyalty to conscience," "responsibility without subordination," and "the discovery and creation of oneself in relation to and differentiated from social codes." Surely, it is not entirely an independent convergence when the tenets of enlightened Protestantism and Reformed Judaism are so difficult to distinguish from the theses of latter-day psychological theology. And what does it mean when the sense of shame so prominent in some Oriental religions does not lead to quite these same values?

Whatever be their origin, Mrs. Lynd's values are hardly likely to be questioned as desirable guides for human conduct, at least in Western society. From the perspective of contemporary psychology, it is not their general validity that lies in question but their place and

utility in scientific endeavor. Mrs. Lynd reluctantly acknowledges, with regard to the theories she so vigorously attacks, that "no other interpretations of personality, as far as I know, offer as clear and coherent a theoretical structure." But, because these interpretations entail an incomplete and unflattering view of man, Mrs. Lynd rejects them and selects in their place conceptions which, though more congenial and constructive, are neither clear nor coherent. Her choice would seem to rest on two assumptions: First, that a theory which is incomplete or incorrect cannot be scientifically useful; second, that the formal properties of a theory can be disregarded so long as it deals with the right content. Yet, the fact remains that the *sine qua non* of a scientific theory is not the values it may tacitly espouse or reject but its translatability into some form of empirical investigation which can lead to support, denial, or modification of the theory. A theory which meets this essential requirement, even if initially incorrect, carries within it the possibility of constructive modification and development. (A case in point cited by Lynd herself is the revision of traditional theory of drive-reduction required by the experiments on exploratory drive of Harlow and others.) It is this possibility of scientific progress which Lynd renounces in her choice of substance and method.

Now it is one thing to acknowledge ambiguity and contradiction in human behavior, quite another deliberately to build them into the constructs aimed at scientific understanding of such behavior. The behavioral scientist must surely have tolerance for ambiguity, but let us not, at least in this instance, make a virtue of necessity. Let us not, as Mrs. Lynd would seem to have us do, equate complexity with confusion, precision with superficiality, and the tangible with the trivial. In her zealous struggle against the misguided methods and assumptions of behavioral science, Mrs. Lynd feels she is wrestling with the devil and emerging victorious. In this reviewer's judgment, she has mistaken both the adversary and the outcome. It is a losing fight, and properly so; for, as with Jacob, the Adversary may, in reality, be the angel of the Lord.

Hebb—A Textbook of Psychology

a biological approach to psychology

Departing radically from the "popular science" approach of many introductory texts, this unusual book gives the student a clear picture of today's theories on the mechanisms of human behavior. Dr. Hebb points out only what is actually known about behavior and the mental processes underlying it, as determined by observation and controlled experiments with man and the higher animals. The mind is considered as an important part of brain activity. Objective methods for investigating *perception, learning, memory, motivation, emotion, thinking, mental illness* and *neural functions* are fully discussed.

This text is readily understandable to students with no previous science courses. It can be adapted to both *introductory* and *terminal* courses in psychology. A valuable *teacher's manual* is available to supplement the text. It offers suggestions for amplifying and illustrating in lectures the topics in the book.

By DONALD OLDING HEBB, Professor and Chairman, Department of Psychology, McGill University.



276 pages
illustrated
\$4.50

The Census Tells about Children

Eleanor R. Bernert

America's Children: An Analysis of Economic and Social Factors Affecting the Nation's Children.

New York: John Wiley & Sons, 1958. Pp. xiv + 185. \$6.00.

Reviewed by J. RICHARD WITTENBORN

who is a University Professor at Rutgers University, specially concerned with psychology and education. Years ago he came under the influence of P. T. Young, Elmer Culler, and Herbert Woodrow at Illinois. Later he was exposed to Clark Hull at Yale where he stayed for a dozen years. He still tries to make his work bear on behavior theory. At Rutgers he has developed a program for training school psychologists and is now engaged in research on affective depressions and on the place of drive in behavior theory. He recently completed a study of adoptive children.

THIS little book, based on the 1950 census of population, provides many answers for those who happen to have appropriate questions. It is one of a series of monographs anticipated at the time of the planning for the 1950 census. Its form has emerged as a result of cooperation between the Census Bureau and a committee appointed by the Social Science Research Council and the Russell Sage Foundation. The usefulness of the various census summaries is extended by these monographs which emphasize interrelationships among the data. The changing characteristics of the nation's population and the probable course of future developments receive particular attention. Although such undertakings contribute to the broad meaning of the census, it is obvious that the limitations of the original data must restrict the present report.

Concerned primarily with the social and economic characteristics of children and youths in the United States, the

Voeks— On Becoming an Educated Person

aids in developing effective study habits



147 pages
illustrated
\$2.00

This intriguing little book is designed to help students make the most of their advanced schooling. The author speaks directly to them in practical, down-to-earth language. She writes clearly of situations with which every student is familiar and offers concrete solutions to these problems. The content, elementary but sound, covers: *the nature of an educated person—modes of behavior which lead to becoming educated as well as making higher grades—how to develop the ability to concentrate and reduce fatigue—what to do about personality traits which are handicaps—how to take notes—how to minimize distractions—how to develop proper attitudes toward lectures, tests and professors—how to eliminate panic from examinations—etc.*

By VIRGINIA VOEKS, Professor of Psychology, San Diego State College.

Gladly sent to teachers for consideration as texts!

W. B. SAUNDERS COMPANY

West Washington Square Philadelphia 5



CHILD WELFARE

Principles and Methods

By DOROTHY ZIETZ, *Sacramento State College*. This book provides a background for an examination of current child welfare services and traces the origins and antecedents of the various methods through which communities attempt to meet the needs of children today. Although the material is presented from the social welfare and planning point of view, it indicates clearly the interrelations of social work, medicine, nursing, education, psychiatry, psychology, and law.

The author traces the development of the three basic methods used in social work—casework, social group work, and community study—and describes the modern setting in which these methods are used for the benefit of children. She also examines the influence of social, economic, educational, psychological, and governmental influences on family and child life. 1959. 564 pages. Prob. \$5.50.

FAMILY and CLASS DYNAMICS IN MENTAL ILLNESS

By JEROME K. MYERS, *and the late* BERTRAM H. ROBERTS; *both of Yale University*. A companion volume to Hollingshead and Redlich's *Social Class and Mental Illness* (Wiley, 1958), this second research report in the New Haven study of social class and mental illness examines relationships between social stratification and psychiatric disorders. Fifty patients (half psychoneurotic and half schizophrenic) and their families, from lower middle and lower classes, were studied intensively by a team of psychiatrists, sociologist, and other social scientists. Based on ten years of research, the report critically examines the social and psychodynamic factors in the development of psychiatric illness as related to a patient's position in society. 1959. 295 pages. \$6.95.

GUIDANCE in TODAY'S SCHOOL

By DONALD G. MORTENSEN, *Los Angeles State College*; and ALLEN M. SCHMULLER, *Westminster College*. Based on the theory that the goal of education should be the optimum development of each pupil, this book stresses the influence of psychological and social factors in the growth and development process. The authors provide a firm theoretical structure upon which can be constructed the flexible methodology of guidance needed to better understand the individual. 1959. Approx. 424 pages. Prob. \$5.75.

INDIVIDUAL CHOICE BEHAVIOR

By R. DUNCAN LUCE, *Harvard University*. The major theme of this book is that systematic, mathematical analysis centering about a single axiom for choice behavior allows one to tie together in a relatively coherent theory a number of different aspects of psychology. The main ones are utility (preference), psychophysics, and learning. 1959. Approx. 168 pages. Prob. \$5.95.

PSYCHOLOGY of the CHILD

Personal, Social, and Disturbed Child Development

By ROBERT I. WATSON, *Northwestern University*. This study approaches child psychology not as a separate or isolated subdivision but as an integral part of the subject matter encompassed by general psychology. The author includes material from clinical and educational psychology, and critically examines the contributions of each of these to the field of child psychology. The material is described in developmental order from infancy through early childhood to later childhood. The theme of the developing personality runs throughout this sequence. Learning theory is combined with psychoanalysis to analyze effectively personality traits. 1959. 662 pages. \$6.95.

Send for examination copies.

JOHN WILEY & SONS, Inc.

440 Fourth Avenue

New York 16, N.Y.

present monograph organizes the census data about four age groups: from birth to 4 years of age, from 5 to 9 years, from 10 to 19, and from 20 to 24. As would be anticipated, the book provides a wealth of facts concerning such broad topics as childhood dependency, family arrangements, educational attainment, and the employment of youth. The statistical summaries epitomize familiar social problems and also provide provocative information which may not be familiar to most readers.

Some of the most interesting data describe trends in employment and education. Although the employment of youths had declined following the turn of the century, since 1940 the number of youths in the labor force has been growing appreciably. These additions to the labor force come largely from student groups. Bernert points out that Utah provides conspicuous exception to the general tendency for a high population ratio of young people, low family income, low expenditure for schooling, and low degree of urbanization to be consistently related with poor educational performance. In Utah there is a very large portion of young people, the average family income is only about at the national average, and the expenditure per pupil and the degree of urbanization are much below the national average; nevertheless, here we have one of the lowest rates of scholastic retardation. This constitutes an unexplained exception to the familiar pattern of relationships among these variables for the southern states. The author sees these data as a challenge to the educational and social adequacy of the age-grade standard theory which has provided the premise upon which the Nation's public education is traditionally arranged.

Although this book contains a great variety of information, it does not describe such conditions as mental deficiency, mental illness, delinquency, institutional care, and orphaned and adopted status. Nevertheless it is a valuable catalog of fact, pertinent to the interests of those who are concerned with social planning, particularly as it affects such matters as public education and the financing of schools, selective migration, and the general problem of

the inequality that exists with respect to responsibility for the care and training of youth.

The monograph describes a society

which is obviously in process of rapid change. It is regrettable that an analysis of the 1950 census was not published until 1958.

Psychology's Methods: a Guide and Inventory

Sadaji Takagi (Ed.)

Shinrigaku Kenkyūhō (Research Methods in Psychology). Tokyo: Iwanami Shoten, 1958. Pp. vii + 488. Y 950.

Reviewed by SOON DUK KOH

Soon Duk Koh is a candidate for the PhD in psychology at Harvard University. He is a Korean and has studied at two Japanese universities, St. Paul's University in Japan and the former Keijo Imperial University in Korea, and at Occidental College in Los Angeles. He has taught at the National University in Seoul, Korea, and is at present on leave from Ewha University in Seoul.

THE importance of method in psychology today is obvious. Professor Takagi, who edits this book, says that the emphasis is necessary because of the youth of psychology as a science and the complexity and breadth of its subject matter. That was also the view of the late Professor K. Masuda, who at his death left one of the most influential books in Japanese psychology, *Methodology in Psychology* (1934), and to whose chair at Tokyo University Professor Takagi fell heir. Professor Takagi is now professor emeritus at Tokyo University and president of the Tokyo Woman's Christian College. Earlier he edited the three volumes of his *Handbook of Experimental Psychology* (1951) and his *Studies of Quantification in Psychology* (1955)—the former with M. Kido. He served thrice as president of the Japanese Psychology Association.

The present volume has 105 contributors, including the 29 members of the editorial staff. All of them are former students of Takagi's at Kyoto and Tokyo Universities, and originally they

planned the volume to commemorate their master's sixty-first birthday.

There are ten chapters in the book, each covering an area of psychology and contributed to by several authors, in one case as many as twenty. Here are the ten.

(1) *Fundamentals*. Psychology is described as based upon experiential givens, "the naive and sensorial raw materials," an eclectic position lying between Mach's and the logical positivists'. Experimental design is statistical.

(2) *Perception*. The chapter presents 23 topics which range from autochthonous perception to behavioral and include every sense department. Most of the experiments cited are phenomenological, but there are two electrophysiological ones.

(3) *Learning*. The text describes the techniques of classical and operant conditioning and of discriminative, motor, and maze learning, without committing itself to the theoretical issues involved. There is also a comprehensive treatment of memory and thinking.

(4) *Motivation*. Here we find descriptions of the measurement of drive and of the Lewinian studies. There is no mention of Harlow, Neal Miller, the ethologists, the septal area, or of need-achievement.

(5) *Emotion and Feeling*. The discussion considers only human subjects and the methods of impression and expression. Both introspection and the physiological recording of bodily changes are deplored.

For a complete course in Introductory Psychology

PSYCHOLOGY, 3rd edition

Norman L. Munn, Bowdoin College

author of *Handbook of Psychological Research on the Rat*
and *Evolution and Growth of Human Behavior*

Solidly grounded in physiology and experimental literature, this extensively rewritten edition gives increased emphasis to the social and cultural aspects of motivation, intelligence, personality, and perceiving.

Student-orientated sequences of topics lead

from a discussion of individual differences to personality

from learning process to thought process

from attending and perceiving to the neural foundations of experience and behavior.

Student's and Instructor's Manuals are available.

451 pages

\$6.25

CONTEMPORARY READINGS IN GENERAL PSYCHOLOGY

Robert S. Daniel, University of Missouri

A new collection of readings by eminent scholars and psychologists for use with any text in the first course

Centering upon 9 principles or concepts of fundamental importance:

Psychology

is a scientific enterprise

is the science of the behavior of organisms

Behavior

is adaptive

is variable

is developmental

is dynamic

The Behaving Organism

is biological

is social

Behavior

is controllable

approx. 400 pages, paperbound

available Spring, 1959

Under the general editorship of Leonard Carmichael, Smithsonian Institution

Houghton Mifflin Company

Boston 7
Massachusetts

New York 16
New York

Atlanta 5
Georgia

Geneva
Illinois

Dallas 1
Texas

Palo Alto
California

(6) *Personality*. The chapter describes the means of assessment from questionnaires to projection techniques, and again stresses the contributions of Lewin.

(7) *Social Psychology*. Here there are excellent discussions of the methods for studying attitudes, opinions, and group behaviors. The last named are, however, mainly limited to interaction processes among group members and neglect persuasion and attitude change.

(8) *Mental Development*. The field is thoroughly covered but too sketchily. It would have been better to have a more thorough consideration of fewer topics.

(9) *Abnormal Psychology*. The arrangement of the chapter is unconventional. It does not consider neuroses, psychoses, functional disorders, psychotherapy, and like topics, but deals with the methods and problems of studying the blind, the deaf, the feeble-minded, abnormal behavior, and criminal behavior.

(10) *Industrial Psychology*. Here the presentation is thorough. It concentrates upon personnel relations, efficiency, and fatigue.

THERE is a large and very valuable bibliography of 1503 titles, distributed as to languages as follows: English, 1046; Japanese, 341; German, 100; French, 14; Russian, 2. The Japanese references are approximately equal in frequency to the English in the topics for fundamentals, perception, mental development, abnormal psychology, and industrial psychology. In the other five fields techniques of American origin dominate.

The 488-page volume by 105 authors is an ambitious undertaking, a miniature handbook, an advanced text on method, and it is a well-integrated whole. Nevertheless the reviewer notes some deficiencies. There should have been a chapter on physiological psychology. So much more could have been said about the role of theories and models than is said. And there ought to have been some comment on the strategy and tactics of science. Nevertheless the volume must be enormously useful in Japan and it is, in a sense, unique, for it seems to have no exact counterpart in any other language.

ON THE OTHER HAND



MORE ABOUT PARAPHYSICS

Dr. Scriven's reply to my inquiry about his phrase, "a local modification of physical principles," exposes his position regarding the relation of parapsychology to natural science and makes it even more vulnerable. What he seems to think is this: Present natural science (physics, physiology, psychology) is mostly correct and accurate, but, of course, incomplete and corrigible. Hence we should not get alarmed about ESP and PK because all we have to do, in case we accept the data, is to modify the laws a little. How much is a little? This can be judged in the case of PK from knowing the masses and velocities of the dice (they are tiny things and move slowly) and calculating the energetic equivalent of the PK-disturbance of their final positions. In the case of ESP, the energetic difference between occasionally saying "circle" instead of "square" cannot be large (since these actions themselves are hardly of heroic proportions), and we are free to make the necessary corrections in the electrochemistry of the nervous system to account for thought-transference. It is a matter of detail.

For Dr. Scriven, the importance of parapsychology for physics and psychology is to be judged by the magnitude of the corrections in laws and parameters required by an acceptance of the proffered data. I can only assume that, if the typical PK experiment employed an enormous catapult to hurl manhole covers (and all else were the same), the adjective *local* would have appeared to him less appropriate by at least one order of magnitude, since *local* must be interpreted as having to do with "weak" effects. If the reported effects of wishing by parapsychological subjects included really big things, like the arrest of the sun in its course to complete the demolition of Jericho, we would never speak of a "piece of gilt" being knocked off the facade.

The heart of the matter, as these illustrations show, is that the logical connections between parapsychology and natural science have nothing to do with numbers of ergs. My invitation to Dr. Scriven to discuss the physics of PK (in terms of the conservation laws) I must admit was something of a snare, albeit a sincere one.

Of course there is no transfer of energy in PK, and of course no one will ever attempt to check on it. When I said, "PK implies that the distribution of dice positions is altered without a transfer of energy, etc.," I meant this as a strict tautology in the language of parapsychology, as an explication of the PK. The design of a PK (or ESP) experiment is precisely such as to insure that there is no transfer of energy between two systems and then to look for a correlation between the formal properties of events in the energetically isolated systems (assuming that at least one has zero periodicity). At first sight, the proper controls can be achieved by using such elementary precautions as separating the systems by a distance judged sufficient in the light of known parameters. However, if it should be found by more delicate measurement that there were a subtle energy transfer of any sort, the next step would be to control for this interaction and to redo the experiment. This research strategy is the essence of parapsychology, since its defining characteristic is to be and to remain parapsychical. The appellation *psycho-kinesis* is well and deliberately chosen.

I take exception to Dr. Scriven's interpretation of parapsychology insofar as it balks at taking this enterprise at face value. I am unconvinced of either the correctness or the merit of suggesting that the parapsychologist is saying less than he does, for he is manifestly contradicting everything he intends to contradict. The experiments of the parapsychologist are intended to demonstrate the invalidity of all ordinary concepts about the organism and its relationship to the environment, of which conservation is only a facet. This Dr. Scriven seems to see, when he says that parapsychology may be "more important to psychology than relativity was to physics." How he squares this with his judgment about "local modification of physical principles," I do not see, nor does it seem compatible with his statement that (ESP and PK) "do not compete with quantum theory or relativity for philosophical sensation value." How anything so important for psychology can have such a small philosophical bearing is hard to understand, unless one views psychology and physics as discrete fields or one ignores that PK would

From McGraw-Hill . . .

NEW PSYCHOLOGY TEXTS

HUMAN ENGINEERING

By ERNEST J. McCORMICK, Purdue University. 467 pages, \$8.00.

A nontechnical introductory survey book dealing with the design of equipment and the adaptation of work environments for optimum human use. It summarizes much of the work done in human engineering by such professions as psychology, physiology and anthropology. Emphasis is placed on the contributions of psychology to human engineering. An understanding of these functions is developed through discussion of human information—receiving, decision making, and action processes.

PERSONALITY

By J. P. GUILFORD, University of Southern California. *McGraw-Hill Series in Psychology*. New Third Edition. 584 pages, \$7.50.

A text for upper-division psychology and education students which places emphasis on individual differences, rather than on stimulus-response psychology of individual behavior. The approach is from the standpoint of the logic of experimental method. Many of the newer methods of personality assessment are described. The author develops a model of personality based upon factor theory as a basis for the assessment and description of persons. Included are chapters describing personality in terms of dimensions found by factor analysis, including dimensions of morphology, physiology, aptitude, and pathology, as well as of temperament, needs interests, and aptitudes.

THE PSYCHOLOGY OF LEARNING

By JAMES DEESE, Johns Hopkins University. New Second Edition. *McGraw-Hill Series in Psychology*. 384 pages, \$6.50.

A completely rewritten and greatly improved revision in an upper-division text. The book attempts to give the student a representative picture of the basic facts and theoretical problems in the psychology of learning. There is strong emphasis on experimental evidence. Theories of learning are treated in the context of particular problems and the theoretical emphasis is upon the analysis of problems rather than upon differences between theoretical schools.

DEVELOPMENTAL PSYCHOLOGY

By ELIZABETH B. HURLOCK, University of Pennsylvania. *McGraw-Hill Series in Psychology*. New Second Edition. 512 pages, \$6.75.

The aim of this new edition is to present the student with a comprehensive picture of man's normal developmental pattern. Emphasis is on the characteristic changes from one stage of development to another. The two major themes throughout are: that childhood is the foundation age of life; and that, how the individual develops his physical and psychological foundations will be influenced by the social and cultural patterns of his groups. More emphasis is placed on the foundation years and cultural influences in this new edition. There are two completely new chapters on middle age, including much new experimental material. It is recommended for courses covering both childhood and adolescence.

Send For Your On-Approval Copy

McGraw-Hill Book Company, Inc.

330 W. 42nd St.

New York 36, N. Y.

be as radical a thing for physics as for psychology.

At last and perhaps constructively, I wish to express agreement with Dr. Scriven that an examination of the ESP and PK literature has an important bearing on "the statistical underpinning of ordinary psychology." In fact, I place little weight on a study whose conclusions depend solely on the fact that on a given trial ten rats ran to the right and two to the left. (I do not, however, wish to imply that the evidence for latent learning is just of this kind, and I think rats can learn without being fed.) The growing tendency of psychology to base its principles on reproducible functional relationships represents a pragmatic withdrawal from sheer enumerative data and the fragile systems of inference associated with such investigations. Fortunately, what psychology studies can be approached from many sides and probed with a variety of systematically related techniques. Parapsychology is restricted to one type of datum and one system of inference, the vagaries of which have conjoined with nonrational factors to give it birth. One should feel no more compulsion to account for its reports than to explain, for example, why that formation on the mountainside should assume, of all improbable things, the pattern of a human face. It is a real rock, with a real face, but its mere existence has none of the character of a scientific probandum.

NORMAN GUTTMAN
Duke University

If my own first reply only "exposes [my] position . . . and makes it even more vulnerable," then this reply of mine should certainly reduce me to ashes! It would be a large pile of ashes if I took up all Dr. Guttman's complaints; I shall confine myself to the more difficult ones.

(1) If a man could sometimes make dice come up the way he wanted them to, simply by wishing that they would do so, I would call this *psychokinesis*. It is obvious that this would be a remarkably interesting achievement or power—to psychologists as well as to croupiers. It might or might not be explicable in terms of an unusually high electromagnetic output from his brain when wishing. (a) If it could be thus explained, we should not have to modify any known laws, merely the conclusions that we draw from them about what is humanly possible (*cf.* calculating prodigies). (b) If it could *not* be thus explained, we should have to make what I called "a local modification of physical principles." It would be *local* because we know it is *not general*: it would be

a *modification* because (as Dr. Guttman agrees) only *small corrections* to the conservation principles would be involved, *not a total reformulation*. If everyone suddenly acquired the power to make mountains and manhole covers jump by so wishing, then a larger and less local error would be involved in continuing to assert the conservation principles in their present form. Indeed, it seems obvious that, contrary to Dr. Guttman's assertion, the "number of ergs" is *extremely* relevant to the property of the term "local modification."

(2) Suppose that we use the term *psychokinesis* in the way that Dr. Guttman (incorrectly) supposes all parapsychologists use it, i.e., not in every case of successful wishing, but only in those where "there is no transfer of energy." Then a parapsychologist can never properly claim that PK exists *without* checking on the transfer of energy. So on Dr. Guttman's definition, his statement that "of course no one will ever attempt to check on it" is absurd. (It was on this point that I am supposed to have fallen into his snare, but I think the string broke.)

(3) Supposing we stick with his definition and make our check on the energy to see if we can apply the term correctly. If we can, we are then in the position discussed in (1b) where my "local modification" comes in. Even if the facts are thus, it hardly follows that the honest discoverer of them was intending "to demonstrate the invalidity of all ordinary concepts about the organism and its relationship to the environment." This ludicrous undertaking has nothing to do with the logical consequences of PK. Relativity produced minor modifications to classical calculations in some cases, none in most cases, and large ones in a few: PK and ESP would each have a similar effect, hence jointly rather more. The philosophical impact is less because we do not have to abandon as meaningless any of our fundamental concepts ("simultaneity," "absolute velocity," etc.), but merely modify (a) some already-modified laws, and (b) the belief that we have already identified all the forces and fields there are.

(4) Dr. Guttman finishes up with an extraordinary attempt to justify the *a priori* dismissal of parapsychological data. I fear we cannot dismiss facts, even awkward facts, and the facts here are pretty striking. A good ESP subject can receive signals and hence messages from an agent more than a hundred miles away, and one might as well dismiss a demonstration of radio-telegraphy. The noise in the ESP

transmission is considerable and necessitates multiple repetition of the message, but this was also true of early Morse transmission. Here is a *typical* example of the subject's guesses when the agent was repeatedly transmitting the same digit, a number between one and five: 3, 4, 3, 1, 2, 3, 3, 3, 3, 1, 2. (This was done under the handicap that the subject believed a *random* series of twelve digits between one and five was involved: Shackleton, 12 August 1942.) What would you take the message or target digit to be? It was in fact *three*, and it is just casuistry to suppose that a man who can perform in this way over a period of years and under strict supervision is not doing anything that needs explanation. If we avoid hysteria in assessing such results, I think we shall find that science can take them in her stride, as she has X-rays, and the radio.

MICHAEL SCRIVEN
Swarthmore College

A single experiment can bear upon the validity of a great number of principles, relationships and concepts. It is simply not correct to say, as Dr. Scriven does, that, if psychokinesis could be explained by a high electromagnetic output from the brain while wishing, we would not have to modify any known laws. Even the antecedent of this implication contains a caricature of what is meant by scientific explanation, for electromagnetic energy by *itself* has no power to select which face of a die comes up. To begin to make scientific 'sense' of psychokinesis we would have to ascribe animate perceptual and motor capacities to dice, even postulate that they 'know' the English words for numbers. These implications are well understood by all participants, including the present ones, in the debates about parapsychology, and Dr. Scriven has already suggested some of these implications in his account of the reasons for the rejection of parapsychology by physical scientists (e.g., "the impossibility of . . . giving the links in the causal chain . . .").

The function of minimizing the indirect evidence against ESP and PK can only be to facilitate the acceptance of the putative direct evidence for such phenomena. I have no investment in strengthening the position of the parapsychologists, but I would suggest to them that if they are interested in gaining credence, their best strategy would be to adduce specific and direct evidence for the failure of a known relationship in the circumstances of a parapsychological experiment. Either parapsychology is proposing certain natural relationships, or offering anecdotes in nu-

"The author of this new book has something to communicate, and his ideas—and the ways in which they 'make sense'—are going to be appreciated. The manuscript is more systematic, better articulated, and more maturely presented than most other books in the field. The book will stand as a quality product."



EDUCATIONAL PSYCHOLOGY

Frederick J. McDonald • Stanford University

The above is a quotation from one of the first reviews of the new text by Frederick J. McDonald. The author's frank emphasis on a critical, conceptual, hypothesis-making approach to the psychological foundations of learning will aid new teachers in becoming thoughtful and critical generators and testers of hypotheses. The equation of "teaching" with "inquiry" is explicitly used as a frame of reference.

Chapters explore ways and means of using personality and social psychology factors in developing and evaluating the learning experience. This new book enables the student of teaching and psychology to find new ways of looking at human behavior—particularly the behavior of the child in the classroom—by providing a basic conceptual framework into which the student can integrate new psychological information, generalizations, hypotheses, and theories.

Frederick J. McDonald's *Educational Psychology*—in centering upon educational processes as they effect the total personality—is already setting trends in the field.

*You are invited to write
Box 31, Wadsworth Pub-
lishing Company, 431 Clay
Street, San Francisco 11,
for a first-press review
copy.*

**A NEW BOOK FROM WADSWORTH PUBLISHING COMPANY
• SAN FRANCISCO**

New . . .

PSYCHOLOGY OF PERSONAL AND SOCIAL ADJUSTMENT

Second Edition 1959

HENRY CLAY LINDGREN, San Francisco State College

Reflecting the findings of the latest pertinent research, the *Second Edition* of this outstandingly successful text continues to emphasize the everyday problems of the normal person. It is completely up-to-date in references and reading suggestions, and it contains a useful glossary. Suggestions from instructors in all parts of the country have been incorporated.

A WORKBOOK IN PSYCHOLOGY OF PERSONAL AND SOCIAL ADJUSTMENT

Jules Grossman and Henry Clay Lindgren, San Francisco State College

Study notes, summaries of the text chapters, supplementary activities, self-examination questions, and thought questions are included in this workbook.

INSTRUCTOR'S MANUAL

This manual contains comments and suggestions regarding the activities in the workbook, multiple-choice questions keyed to the text, and a key to the self-examination questions in the workbook.

Widely used . . .

GENERAL PSYCHOLOGY 1955

HENRY E. GARRETT, University of Virginia

Planned for the introductory course, this text surveys the field of psychology and presents fundamental principles concisely, clearly, and authoritatively. The biological and social approaches are combined in a well-balanced presentation. A readable style and numerous case histories help keep the student's interest at a high pitch.

PROJECTS IN PSYCHOLOGY

A Student's Manual to accompany Garrett's General Psychology

Robert J. Williams and August A. Fink, Jr., Columbia University

Each chapter in this manual begins with a synopsis and outline of the corresponding chapter in *General Psychology*. Most of the chapters include both an individual and a group project.

TEST QUESTIONS FOR GENERAL PSYCHOLOGY

Objective test questions are provided for each chapter of the text.

College Division

American Book Company 55 Fifth Avenue, New York 3, N. Y.

merical form. Meaningful relationships have not only inexhaustible phenomenal consequences but also manifold logical connections with other principles, if nature and science have system and structure.

NORMAN GUTTMAN

Let us agree on something. Telepathy was antecedently improbable. So was the bending of light rays by gravity. Both appear to be established by direct evidence. Now the theoreticians have to accommodate these minute effects. The cash value of their decisions is negligible for 95 per cent of science. For someone with a heavy metaphysical investment in the status quo, it will be more serious.

MICHAEL SCRIVEN

CONSTITUTION VS. CULTURE

In recent years few texts—fewer yet in the field of personality—have given as serious attention to the class of variables labeled constitutional as Solomon Diamond's *Personality and Temperament* (Harper, 1957). In so doing it revives and causes reflection about the old heredity-environment controversy which has lain relatively dormant for the past two or three decades. By casting new light on this neglected but still crucial problem of psychology, Diamond's book makes a contribution in addition to those others mentioned by Leona Tyler in her recent review of the Diamond book (*CP*, Dec. 1958, 3, 355f.).

Perhaps, as Tyler pointed out, the controversy's state of decay represented a "need to neglect" due to the really burdensome problem of defining constitutional variables. The equation of temperament and emotion resulted in one such impasse. By recasting his definition of temperament more in alignment with those of such ethnologists as Lorenz and Tinbergen, Diamond achieves needed latitude for interpreting the ways in which these factors operate. His claim is that environmental effects on personality cannot really be adequately evaluated without greater recognition and investigation of the constitutional bases of behavior.

In her recent article, *Heredity, environment, and the question 'how?'*, Anne Anastasi (*Psychol. Rev.*, 1958, 65, 197-208) reviews some of the historical changes that have transpired in the heredity-environment conflict. She points to a recent emphasis on the question *how?* rather than *which one?* or *how much?*. In focusing on the modus operandi of constitutional and cultural factors, rather than on describing which ones operate and in what magnitude, Diamond's book helps to solidify this

current trend in the study of individual differences.

G. H. ZUK

St. Christopher's Hospital for Children
Philadelphia

THE TEENAGER PROBLEM

Professor Symonds in his review of Remmers and Radler's *The American Teenager* (*CP*, May 1958, 3, 139) seems to be trying to sweep the dirt in these findings under the rug with a broom made from little else but rationalizations. If it is true, as I believe, that this Purdue study is a very important one for all the social sciences, then it deserves a more thoughtful handling than Professor Symonds gave it.

First the reviewer says that some of the findings "are little short of alarming." This he illustrates by listing the tragic civil liberties opinions.

Following this he tries to soften these findings by saying that the teenagers answered without fully considering the questions. Yet on page 194 the authors discuss this very factor. There they remark that most social scientists believe that, even if the replies were unconsidered, those who gave them could become likely dupes for authoritarian leaders.

Next the reviewer gives another reason for these "unconsidered" authoritarian answers. He tells us that his own studies show that teenagers are full of guilt and aggressive feelings but not to give it a thought because these will "slacken off in adult years."

At the end, however, Professor Symonds lets the reader relax, for he says: "In short, I believe that Remmers' findings should not be the cause of too much concern over the future of American society. These adolescents should grow up into mature persons who do not differ too much in many of these beliefs and attitudes from their parents or from adults of today."

Here, indeed, is progress and faith in the future: the adolescents will mature and be very much like their parents! The fact that they are like their parents is exactly the conclusion of the authors (p. 250), but, unlike Professor Symonds, the authors seem very much concerned about these findings and believe everything possible should be done to remove the authoritarian influences in our society. They believe that the transition from adolescence to adulthood in our culture is needlessly rough. Then they make a remark that should be thoroughly imprinted on everyone's conscience: "It is the task of society to smooth the way."

K. C. JOHNSON

La Grange Park, Ill.

OPUS

#1

An event of importance for
NEW AUTHORS ONLY

OPUS #1 is the title of a new Philosophical Library 1959 book series which will publish the deserving manuscripts of new authors only.

OPUS #1 has two basic requirements: The author must have something to say and know how to say it.

OPUS #1 will be dedicated to the humanities and will include works in the fields of Art, Literature, Philosophy, Religion, Sociology, History, Psychology and Psychiatry.

OPUS #1 books will be printed on special, fine antique paper, and artistically cloth-bound for library use.

Only complete book-length manuscripts accepted.

Inquire for full details
Philosophical Library, Publishers
Dept. OP-104
15 East 40 St., N.Y. 16, N.Y.

Schizophrenia	
Manfred Sakel	5.00
Epilepsy	
Manfred Sakel	5.00
The Analysis of Dreams	
Nedard Boss	6.00
Group Psychoanalysis	
B. Bohdan Wassell	3.75
The Neuroses and their Treatment	
Edward Podolsky	10.00
Psychotherapy and Society	
Wladimir Eliasberg	6.00
The New Chemotherapy in Mental Illness	
H. L. Gordon	12.00
Principles of Self-Damage	
Edmund Bergler	6.00
The New Psychiatry	
Nathan Masor	3.75
Experimental Psychology	
Ivan Pavlov	7.50

Philosophical Library, Publishers
15 East 40 Street, New York 16

BOOKS RECEIVED

- ACKERMAN, N. W. *The psychodynamics of family life: diagnosis and treatment of family relationships*. New York: Basic Books, 1958. Pp. xvi + 379. \$6.75.
- APPELBAUM, BERNARD. *Dimensions of transference in psychotherapy*. (University of California Publications in Personality Assessment and Research, No. 2.) Berkeley: University of California Press, 1958. Pp. 90. \$1.75.
- ARENDT, HANNAH. *The human condition*. Chicago: University of Chicago Press, 1958. Pp. vi + 333. \$4.75.
- BAKAN, DAVID. *Sigmund Freud and the Jewish mystical tradition*. Princeton, N. J.: D. Van Nostrand, 1958. Pp. xx + 326. \$5.50.
- BELLAK, LEOPOLD (Ed.), with the collaboration of P. K. BENEDICT. *Schizophrenia: a review of the syndrome*. New York: Logos Press, 1958. Pp. xx + 1010. \$14.75.
- BJERSTEDT, ÅKE. *Definition of sociometry: an expert vote*. (Sociometry Monographs, No. 39.) New York: Beacon House, 1958. Pp. 20.
- BROWER, DANIEL, & L. E. ABT (Eds.). *Progress in clinical psychology*. Vol. III. New York: Grune & Stratton, 1958. Pp. vi + 249. \$7.75.
- COHEN, DOROTHY H., & VIRGINIA STERN. *Observing and recording the behavior of young children*. (Practical Suggestions for Teaching, No. 18.) New York: Bureau of Publications, Teachers College, Columbia University, 1958. Pp. x + 86. \$1.00.
- DEESE, JAMES. *The psychology of learning*. (2nd ed.) New York: McGraw-Hill, 1958. Pp. x + 367. \$6.50.
- FLEMING, C. M. *Teaching: a psychological analysis*. New York: John Wiley & Sons, 1958. Pp. xiv + 291. \$5.00.
- GISCARD, P.-H. *La formation et le perfectionnement du personnel d'encadrement*. Paris: Presses Universitaires de France, 1958. Pp. viii + 241. 1200 fr.
- GRANT, NIELS, JR. *Art and the delinquent: how to stimulate social adjustment through guided self-expression*. New York: Exposition Press, 1958. Pp. 36. \$3.00.
- GROSS, LEONARD. *God and Freud*. New York: David McKay, 1959. Pp. viii + 215. \$3.95.
- HARLOW, H. F., & C. N. WOOLSEY (Eds.). *Biological and biochemical bases of behavior*. Madison: University of Wisconsin Press, 1958. Pp. xx + 476. \$8.00.
- HARROWER, MOLLY. *Personality change and development: as measured by the projective techniques*. New York: Grune & Stratton, 1958. Pp. 383. \$10.00.
- HOHN, F. E. *Elementary matrix algebra*. New York: Macmillan, 1958. Pp. xiv + 305. \$7.50.
- HUNT, LUCILLE A. *A developmental study of factors related to children's clothing preferences*. (Monographs of the Society for Research in Child Development, Ser. No. 70, Vol. 24, No. 1.) Lafayette, Ind.: Child Development Publications, Purdue University, 1959. Pp. 47. \$1.75.
- JACOBUS, A. J., MADELEINE, J. WILKINS, LUDMILA KASSIANOFF, RITA B. SLIE, & S. L. WHITEHEAD. *Aviation medicine: an annotated bibliography*. Vol. 2: 1953 literature. St. Paul, Minn.: Aero Medical Association, 1959. Pp. vi + 354. \$5.00.
- KIRK, S. A., in cooperation with M. B. KARNES, RAY GRAHAM, & WILLIAM SLOAN. *Early education of the mentally retarded: an experimental study*. Urbana: University of Illinois Press, 1958. Pp. viii + 216. \$6.00.
- LEVY, D. M. *Behavioral analysis: analysis of clinical observations of behavior; as applied to mother-newborn relationships*. Springfield, Ill.: Charles C Thomas, 1958. Pp. xxxiv + 370. \$9.50.
- MARTÍ-IBÁÑEZ, FÉLIX. *Centaur: essays on the history of medical ideas*. New York: MD Publications, 1959. Pp. xx + 714. \$6.00.
- MASLAND, R. L., S. B. SARASON, & THOMAS GLADWIN. *Mental subnormality: biological, psychological, and cultural factors*. New York: Basic Books, 1959. Pp. 442. \$6.75.
- MCCARTHY, R. G. (Ed.). *Drinking and intoxication: selected readings in social attitudes and controls*. Glencoe, Ill.: Free Press; New Haven: Publications Division, Yale Center of Alcohol Studies, 1959. Pp. xx + 455. \$7.50.
- MILLER, D. R., & G. E. SWANSON. *The changing American parent: a study in the Detroit area*. New York: John Wiley & Sons, 1958. Pp. xiv + 302. \$6.50.
- MONKS, J. P. *College men at war*. Boston: American Academy of Arts and Sciences, 1957. Pp. xxiv + 310.
- NEMEČEK, OTTOKAR. *Virginity: pre-nuptial rites and rituals*. New York: Philosophical Library, 1958. Pp. x + 129. \$4.75.
- PARNELL, R. W. *Behaviour and physique: an introduction to practical and applied somatometry*. London: Edward Arnold, 1958 (distributed by Williams & Wilkins, Baltimore). Pp. viii + 134. \$7.00.
- REIK, THEODOR. *Of love and lust: on the psychoanalysis of romantic and sexual emotions*. New York: Grove Press (by arrangement with Farrar, Straus and Cudahy), 1959. Pp. xiv + 623. \$2.45.
- REISS, SAUEL. *Language and psychology*. New York: Philosophical Library, 1959. Pp. 299. \$3.75.
- RINKEL, MAX (Ed.), with H. C. B. DENBER. *Chemical concepts of psychosis*. (Proceedings of the Symposium held at the Second International Congress of Psychiatry, 1-7 Sept. 1957, Zurich, Switzerland.) New York: McDowell, Obolensky, 1958. Pp. xxiv + 485. \$7.50.
- SCHWARTZ, GEORGE, & P. W. BISHOP (Eds.). *Moments of discovery*. Vol. I: *The origins of science*. Vol. II: *The development of modern science*. New York: Basic Books, 1958. Pp. xviii + 500; xii + 501-1005 [505]. \$15.00 the set.
- SCOTT, W. A., & S. B. WITHEY. *The United States and the United Nations: the public view, 1945-1955*. (Prepared for the Carnegie Endowment for International Peace under the auspices of the Survey Research Center, University of Michigan.) New York: Manhattan Publishing Co., 1958. Pp. xiv + 314. \$3.00.
- SOCIAL SCIENCE RESEARCH COUNCIL OF AUSTRALIA, INC. *Bibliography of research in the social sciences in Australia, 1954-1957*. Canberra: Social Science Research Council of Australia, 1958. Pp. 52. \$1.00.
- STUKÁT, K.-G. *Suggestibility: a factorial and experimental analysis*. (Acta Psychologica Gothoburgensia, II.) Stockholm: Almqvist & Wiksell, 1958. Pp. 248. Sw. kr. 25:—.
- SYMONDS, P. M. *What education has to learn from psychology*. New York: Bureau of Publications, Teachers College, Columbia University, 1958. Pp. 74. \$1.25.
- WATSON, R. I. *Psychology of the child: personal, social and disturbed child development*. New York: John Wiley & Sons, 1959. Pp. x + 662. \$6.95.
- WEEKS, H. A. *Youthful offenders at Highfields: evaluation of the effects of the short-term treatment of delinquent boys*. Ann Arbor: University of Michigan Press, 1959. Pp. xxviii + 208. \$6.00.
- WINDLE, W. F. (Ed.). *Neurological and psychological deficits of asphyxia neonatorum: with consideration of use of primates for experimental investigations*. Springfield, Ill.: Charles C Thomas, 1958. Pp. xiv + 336. \$8.00.

TWO
UNUSUALLY
FINE
TEXTS

EDUCATIONAL PSYCHOLOGY

By George G. Thompson, Eric F. Gardner, and Francis J. Di Vesta. Written in terms understandable to the average college freshman, this text has a new and provocative interpretation of educational psychology. It explains the principles of personality development and group dynamics without slighting the conventional topics usually covered. The book is divided into five parts that discuss in detail the following topics: the psychologist's view of the learning process; objective, reliable methods of obtaining information about pupils; optimal learning conditions in the classroom; effective adjustment of pupils to everyday living; and the mental health of the teacher. A *Student's Workbook* containing questions and problems has been prepared for use with the text. *Just published*

CURRENT STUDIES IN PSYCHOLOGY

By F. Joseph McGuigan and Allen D. Calvin. A unique feature of this text, which is designed to give the student some idea of current trends in psychological research, is that, when necessary, the experimenter's reports are rewritten in order to be understandable to the beginning student. The text includes experiments from the various fields of psychology, for example, learning, social psychology, and personality. The emphasis throughout is upon "pure" rather than "applied" science, and upon the connection between the results of research and the methods of obtaining those results. A key makes possible the use of this book with the most frequently-used psychology texts. Also available is a book of *Test Questions*, which has been designed specifically to accompany the McGuigan and Calvin Text.

226 pages

paperback

\$2.65



APPLETON
CENTURY
CROFTS
INC.

35 West 32nd Street
New York 1, New York

PSYCHOLOGY AND HUMAN PERFORMANCE

An Introductory Text

Robert M. Gagne and Edwin A. Fleishman

Written by two distinguished younger psychologists, this beginning text provides a sound experimentally oriented course in the principles of psychology, and gives the student a logical framework within which to understand human behavior. The stress on the application of these principles to human performance makes the book specially suited to the needs of technical students.

May

A STUDENT WORKBOOK

for Psychology and Human Performance

William Franklin Strother and Robert L. Decker

CONTRIBUTIONS OF INFORMATION THEORY TO PSYCHOLOGY

Fred Attneave

Enabling students with little or no knowledge of information theory to apply the techniques of informational statistics to psychological research, the book's straightforward approach will clarify the relationship between the techniques discussed and conventional statistics. Professor Attneave gives a comprehensive summary of informational methods useful in psychological research and describes the more important methods in enough detail that the reader can use them as research tools.

May

RESEARCH METHODS IN SOCIAL RELATIONS

Revised

Claire Selltitz, Marie Jahoda, Morton Deutsch, and Stuart W. Cook

This newly revised one-volume edition retains the primary features of the highly successful Jahoda-Deutsch-Cook text, and has been brought up to date by the inclusion of recent studies and new developments in methodology. The emphasis which the earlier edition placed on prejudice has been reduced in order to broaden the scope of this revision.

April

INNER CONFLICT AND DEFENSE

Daniel R. Miller and Guy E. Swanson

The findings of a research project conducted among pre-adolescent boys of normal intelligence from Christian families originating in northwestern Europe, forms the basis of this important new book on the nature of conflict in children, its origins, and its different modes of resolution. Each of the characteristics of conflict studied—moral standards, defense mechanisms, and expressive styles—is traced to particular child-rearing practices such as type of discipline, extent to which requests are explained, amount of reward, and timing of weaning.

May

HENRY HOLT AND COMPANY

383 Madison Avenue, New York 17, New York

*The Editors and Publishers
proudly announce*

THE 1959 ENCYCLOPEDIA AMERICANA

Founded in 1829 by Francis Lieber, one of the leading social scientists of the nineteenth century, THE AMERICANA has brought succinct statements of the range of reliable knowledge to successive generations of Americans.

Scholars and scientists throughout the world have contributed fresh and authoritative accounts of their specialties. Contributors of articles in psychology include Philip L. Harriman, Calvin S. Hall, Floyd H. Allport, John F. Dashiell, Ernest Jones, Wendel A. L. Johnson, and many others. Representatives of the thousands of AMERICANA authors who cover every field of learning are Norbert Wiener, Crane Brinton, Mark Van Doren, George Gamow, Talcott Parsons, and C. I. Lewis.

An intensified program of revision has culminated in the 1959 edition. A partial list of the new or revised articles which have been added to the 1958 and 1959 editions of THE ENCYCLOPEDIA AMERICANA that are of *special interest to psychologists* follows:

Adolescence
Anxiety
Apperception
Apprehension
Consciousness
Educational Psychology
Emotion
Empathy
Escape Mechanism

Folk Psychology
Sigmund Freud
Functional Psychology
Genetic Psychology
Gestalt Psychology
Habit
Johann Friedrich Herbart
Hypertension
Insanity

Instinct
Legal Psychology
Limen
Memory
Religious Psychology
Space Medicine
Statistics
Thought
Topological Psychology

26,000 pages

59,000 articles

13,000 illustrations

30 GREAT VOLUMES

THE ENCYCLOPEDIA AMERICANA

4606 East-West Highway, Washington 14, D. C.

Four New Basic Books for the Psychologist

THE INTEGRATED CLASSROOM

by H. Harry Giles

In this eminently readable new book, a leader in the field of social relations analyzes the problem of integrating varying racial, religious, national and socio-economic groups within the schoolroom. Documenting his analysis with the findings of an

intensive thirteen-state survey he has conducted on the issue of classroom integration, Dr. Giles probes the nature of the conflict and provides examples of how it is being handled—and *mis*handled—across the nation today. **\$6.50, May**

PRELOGICAL EXPERIENCE

by Edward S. Tauber, M.D. and Maurice R. Green, M.D.

In what ways do dreams, fantasies, hallucinations, extrasensory perception, creative thinking, conditions of brain damage and experimentally induced states reveal prelogical thought patterns? Two psychoanalysts here draw upon extensive

clinical and experimental data to demonstrate how the operation of prelogical processes may be inferred or detected. They show how the understanding of prelogical experience may help broaden knowledge of human behavior. **\$3.75, May**

FIVE FAMILIES

by Oscar Lewis, with an introduction by Oliver LaFarge

A fascinating new book by a brilliant young anthropologist who re-creates the daily lives of five Mexican families with the perceptiveness and power of a novelist. Taking the reader into the homes and minds of peasants in a rural village, and dwellers in a slum

tenement in Mexico City, a new working-class housing development, and an upper-class residential district, *Five Families* presents a vivid, contrasting cross-section of the rapidly changing culture of Mexico today. **\$5.50, May**

MENTAL HEALTH MANPOWER

by George W. Albee

The well-known Chairman of the Department of Psychology at Western Reserve University is the author of this third volume in the series sponsored by the Joint Commission on Mental Illness and Health. Dr. Albee sur-

veys existing facilities for the training of mental health personnel, studies the present utilization of manpower and evaluates the implications for the future state of mental health in America. **\$6.75, May**

Basic Books, Publishers

59 Fourth Avenue, New York 3, N.Y.

